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# Educational SCREEN

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## Visual Instruction News

CONTENTS

Sensory and Motor Aids

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Motion Pictures---
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Index to Volume XIII (1934)

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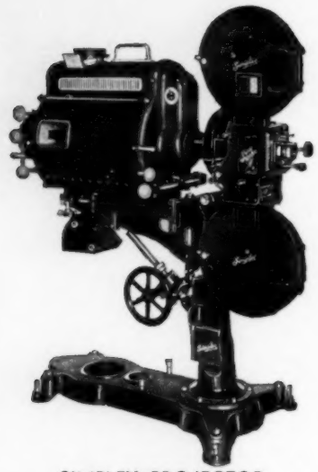

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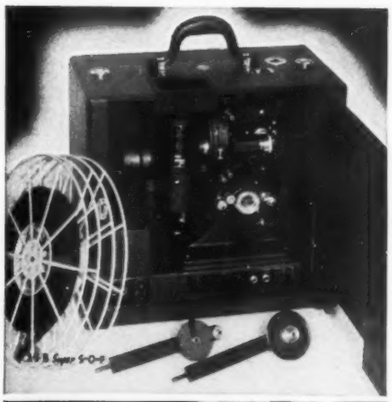

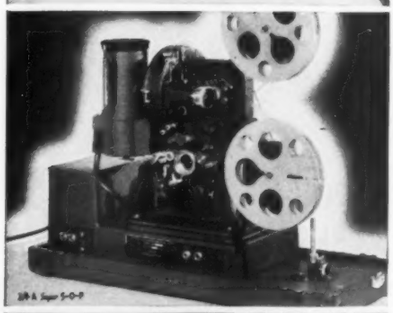

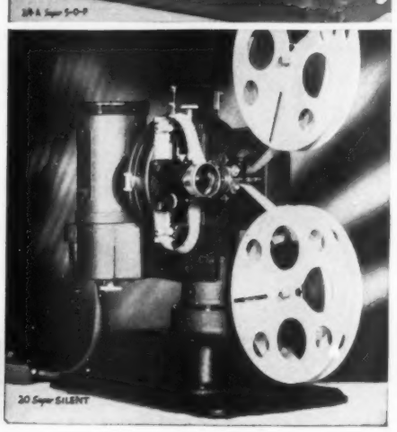

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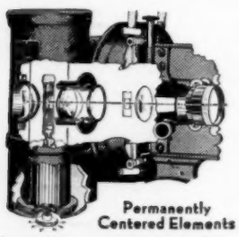

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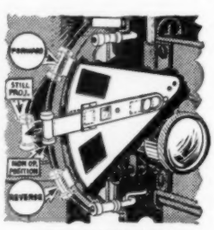


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DECEMBER, 1934

VOLUME XIII NUMBER 10


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# Sensory and Motor Aids*

BENJAMIN C. GRUENBERG

IT IS GENERALLY recognized that the transmission of ideas and the stimulation of thought by means of words need constantly to be reinforced, and that visual aids are for most people the most effective. In fact, the conversion of "education" as conducted by schools into an almost exclusively verbal process has been for long condemned as a serious obstacle to genuine educational effort; and the picture book was urged upon educators centuries ago as a means of re-establishing the nexus between words and things!

### Pictures

Education in science calls especially for the seeing of things, and eventually for their manipulation. The still picture, along with the diagram, has been taken for granted in the book, the chart, the projection by means of the lantern. The graphic arts have been making rapid advances in the century since photography became practicable, and now furnish substantial contributions to the making of scientific books more effective as well as more attractive, and to the making of scientific lectures likewise. The projection apparatus has also improved so that it makes possible showing not alone prepared slides from photographs and drawings, but actual objects, including microscopic preparations, and including living objects in action.

### Motion Pictures

For the past fifteen or twenty years more and more attention has been given to the possibilities of the cinema as an aid in scientific instruction . The earliest efforts to bring the motion picture into the service of education were largely dominated by the commercial interest in getting multiple use — and multiple pay — for films that had already been completed for recreational or other purposes. The educators were slow both to make demands upon the new industry for films deliberately designed to serve their ends, and to experiment on their own account with the new instrument. Non-commercial experimentation with the motion picture seems to have begun in the laboratories of research workers needing a means of recording phenomena that could not be satisfactorily reproduced otherwise, and a means of analyzing movements of all kinds; in industrial and commercial organizations as a means of instructing workers, salesmen, and others in standard practice and in the workings of their special appliances; and in educational propaganda by the governmental and other agencies interested in promoting health, standard usage in agriculture, and other non-commercial ends.

The advantage of the motion picture as a means of impressing the observer was appreciated from the first; and it was indeed predicted that this instrument would eventually displace the teacher — just as more recently many have hoped or feared that the radio would displace the teacher. The value of the cinema in education has come to be more sharply defined as study and observation have brought out the distinctive effects that it can produce, as against still pictures on the one hand, and against experience with real things on the other. It is necessary to recognize the limitations of the instrument if the optimum use is to be made of it.

Numerous technical studies have been under way to develop techniques of using the film in education, and to discover its relative effectiveness as against other educational procedures. The specific feature of *motion,* whether in photographs of actual things, people, animals, rivers, and other natural phenomena, or in charts, machines, models and other artifacts, enables us to clarify ideas of complex relationships, especially relationships involving time, without reliance upon technical vocabularies or circumlocutions in the vernacular — and more effectively than is possible with any verbalizing.

The motion picture has the disadvantage that it can be very dogmatic. Unless what it shows is suitably qualified and interpreted the ordinary spectator carries away convictions that rest on an ineradicable impression. This is not because the film is necessarily false as to what it shows, but because what one sees is not necessarily adequate testimony for what one thinks it means. The combination of sound with film is making possible both the refinement of the teaching and the strengthening of the impression, so that there is now at hand a powerful device for teaching movements, operations, processes in the actual world of experience and for elucidating interpretations and abstract concepts of high degrees of elaborateness and complexity. Undoubtedly it will be possible to produce sound films that are for certain limited purposes virtually autonomous, that is, capable of delivering their educational messages effectively without the direct aid of a teacher. This does not threaten of course to make educational institutions automatic and mechanical; it means that the function of the teacher must more and more come to be of a kind that can not be performed by a machine — an important advance toward humanizing education and toward developing understanding.

The advantages of the motion picture for scientific education have been generally recognized. In the symposium "Can the Film Educate," Mary Field says, "For showing how machinery works, how buildings are

**Editor's Note—This article is an extract from a report on science in adult education planned for publication later in book form.*

balanced and planned, how chemical reactions take place and how trade movements are directed, there is nothing to compare with the animated cartoon, and we have hardly yet begun to experiment with its use in instruction." But beginnings have been made for using both direct photography and the animated cartoon and model; experiments are actually under way in many institutions, both in this country and in several foreign countries.

Notable scientific films have been made in every field of scientific interest, especially designed to inform, to enlighten, to elucidate, not merely to tell. Perhaps the most ambitious undertaking is that of the University of Chicago in cooperation with the Erpi Picture Consultants. Although these sound films are planned primarily for classroom instruction for undergraduates in the general science courses they should lend themselves admirably for use with adult groups. Some of these films have in fact been used experimentally with lay groups; but much more experience will be needed before their special value and effectiveness can be evaluated. The plans for these films and their relation to the reorganization of undergraduate instruction at the University of Chicago are of interest here because they point to educational objectives more closely akin to those of adult education than college efforts heretofore have commonly manifested.

Our traditional identification of the film with the theater has led to two other types of suggestion: 1. How can educational films be introduced into the commercial motion picture theater? 2. Would it be feasible to develop a motion picture theater for the presentation of science to adults?

On several occasions "scientific" films have been put before the public as separate exhibitions — that is, apart from any recreational program. The "Relativity" film drew large audiences and was at least for a time commercially successful. The "Evolution" film also attracted a good deal of attention but the backers went into bankruptcy and further promotion was suspended. In both cases there is no doubt that these films attracted almost entirely because of the wide publicity that the theme topics had been receiving at the time. "Relativity" was a challenge because it invited the ordinary individual to match his wits against the handful of giant intellects who were alleged to be alone capable of understanding what Einstein was saying. The film also intimated a clarification of the great mystery which promised to satisfy genuine curiosity. The "Evolution" film came while the echoes of the Scopes trial were still resounding, and had received a great deal of denunciation from prominent fundamentalists. As to the merits of the films, educationally, there was no doubt room for improvement. Arctic, African and other exotic films, including one purporting to present the lives of the dinosaurs, had fair to good commercial runs, although educationally they left much to be desired.

Short units on various scientific subjects have been introduced from time to time in commercial theater programs as fillers: it is impossible to form any judgment as to the value of these educationally, or as to the reception they received. There are many one-reel films that are interesting and impressive and potentially valuable as arousing interest and directing attention to various scientific concepts and problems; some of these could probably be interpolated in commercial theaters if their use involved no additional cost or risk to the theater owners. It would probably be worth while to experiment with a number of such films in various areas, and arrange to canvass the reactions of the auditors.

Experimental theaters devoted to scientific films would be worth trying out on the basis of the success which has accompanied the Planetarium. It would be assumed that there are people who are sufficiently interested to see such films — to take the time and to pay a fee. In several large cities there are today unused theaters that could be used at comparatively little cost; and the producers of films could be induced to cooperate in an extensive and controlled try-out.

Various university extension divisions, museums, and city departments of education have been using scientific films in their adult education programs; and others are planning to do so when arrangements are completed. In 1931 there were estimated to be 350,000 non-theatrical projectors in use in this country, owned by schools, voluntary educational, propaganda and religious organizations, commercial companies, and individuals. And more than thirty-five "reliable commercial companies" were producing non-theatrical films. These films are being distributed by some 200 commercial companies, by voluntary associations, schools, museums, and government bureaus.

According to Cline M. Koon, specialist in radio and visual education of the U. S. Office of Education, there is need for a central agency or institute "(1) to assemble, edit, classify, publicize, and catalogue non-theatrical film material, and to set up a convenient and economical distribution system; and (2) to produce and stimulate the production and effective utilization of educational films." The need for experimental work in this field for the special service of science education among adults could perhaps be served at least in part through cooperation with groups interested in the larger educational program.

### Drama

The dramatic possibilities of the controlled movements depicted by the cinema has suggested also that in the development of educational devices for furthering science among adults the drama be called upon to yield its specific values. In the past there have been dramatized the lives of Louis Pasteur and Walter Reed. The film based on Sinclair Lewis' "Arrowsmith" presents some of the problems and issues that arise in the life of the scientist, as did the

play "Wings Over Europe." These plays and films and others like them were not primarily concerned with the presentation of the scientific problems or procedures: but the history of science would yield many episodes that could be made into good drama that is at the same time educational. And in many cases such drama would lend itself to presentation through the cinema.

Showing with the aid of the various means which have been suggested is, from an educational point of view, a step in advance of telling. Dramatic presentation, when effective, is a step further in the direction of active participation, but only to the extent that the spectator or auditor is made to identify himself eagerly with one or another of the characters or protagonists. Indeed, the effective teaching, in science as in other fields, depends upon making the learner feel a genuine concern for outcomes, for the results of an experiment, or even a computation.

### Demonstrations

Non-academic lectures and courses in science for lay auditors are frequently accompanied by demonstrations. The lack of facilities for such demonstrations is one of the commonest limiting factors in the extension of science education to adult groups. The demonstrations are considered essential adjuncts because the science study has to do with real things and with experimental modifications.

These demonstrations are parallel to such aids as the telescope in the planetarium in the teaching of astronomy, or the microscope in the teaching of biology. The scientific demonstration is by many scientists and educators considered a substitute and a poor one, of actual laboratory work by the students themselves. From the results of special studies made in England and in this country, it becomes doubtful, however, whether the laboratory in which each individual does his own experimenting is as effective in teaching certain facts and principles as well prepared and well conducted demonstrations. It is at any rate probable that the outcomes of the two kinds of experience are different and that we shall find demonstrations not only more economical but more effective than individual laboratory work for adults, over large areas of instruction.

In some cases there is the danger that good demonstrations will become the main show, that is, that they will take on the form of exciting exhibitions, with the result that the development and clarification of ideas will become slighted. While this danger is of course always present, there is every reason for those who have the skill to do so to combine showmanship with their pedagogical efforts.

The use of models and special apparatus designed to facilitate the clarification of the complex ideas carries another danger, namely, that the instructor will permit the demonstration to make a lasting impression of its own without carrying over adequately the facts, processes, relationships, principles, which the demonstration is ostensibly intended to convey. Instead of aiding the imagination to grasp what can not be directly envisaged, the demonstration leaves a memory of tubes, valves and movements, but no hint of what actually happens in the circulation of the blood, for example, or in the work of a leaf. That all comes down to the danger of letting the accessories become the main concern, of assuming that equipment and special aids will make up for poor teaching.

While the demonstration can be a valuable, indeed an indispensable, aid in the teaching of science, it is probably sound to assume that, as many have suggested, the best teaching will be the kind that leads the learner to undertake some activity of his own. Good organization of science education should therefore include the provision for field and laboratory and shop work by as many individuals as can become interested to follow up didactic instruction.

## In Memoriam

### Dudley Grant Hays 1860-1934

DUDLEY GRANT HAYS made an enviable record of some forty years in the educational field in Illinois and the City of Chicago. After service as Principal in several Chicago schools, he became head of the visual instruction department in the city school system. For the last fifteen years of his active service his reputation and influence in visual education spread far, and he was an outstanding figure in national organizations in the visual field.

The Educational Screen particularly feels the loss of Dudley Grant Hays. He served as Director on the magazine almost from the start and for twelve years gave unstintingly the staunch support and invaluable counsel born of his unwavering faith, his rich and rare experience in this field of unlimited possibilities. Fortunately he lived to see the certainty of a great future for the movement so near his heart and to which his work had made such signal contribution.

## Contributors to this Issue

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# The Use of Films in General Zoology Teaching*

JOHN W. PRICE

THE CHOICE of any technique or method of presenting a subject should be determined primarily by the nature of that subject matter and the objectives sought in its presentation. The instructor must be constantly raising the question, "How may I best present my subject to the student?" But just as constantly must he seek an answer in terms of his results—in terms of his objectives attained. Obviously, one's objectives should be clearly held in mind.

What are desirable goals to be attained in a General Zoology course? The staff members of the Zoology Department at the Ohio State University, in building the present General Zoology course have set up for themselves certain objectives. In stating these objectives, it has been kept in mind that the students in the University entering this course bring with them a widely variable background of experience, ranging all the way from the student raised in the city whose only direct contact with animals has been by way of an occasional pet, to the small town or country lad whose hobby has been the study of nature at first hand; from the student whose training has included no scientific courses, to him who enters with a good background in high school and college physics, chemistry, and biology. Then, too, the use to which this course is to be put in the lives of the students also influences our choice of objectives. The greater proportion of the students are majoring in the non-biological fields. Their curriculum calls for little if any more training than secured in this general course. Others are preparing themselves for Medicine, Dentistry, Veterinary Medicine, technical agriculture, and related types of professional service, in the Biological sciences. The task of most adequately presenting the subject of zoology to these students is indeed a challenging one.

We have set up the following objectives in teaching the General Zoology course: (1) To build up in the student's mind a concept of the nature of animals; and of the vital processes that occur in their bodies. (2) To arouse in them an appreciation of the great variety of animal life on the earth. (3) To lead them to an understanding of the relationships that exist between animals and their environments, and of the factors which govern the distribution of animal life on the earth at the present time, and which have operated during their past history.

But our aim is to teach more than simply the subject matter of the course. One of the major contributions of any scientific course should be that of aiding the student in acquiring the use of the scientific method. Therefore an important objective is to train students to observe natural phenomena carefully, and to describe their observations accurately. As a second step in this scientific method, we must train them to recognize and formulate in their own words a wide variety of Zoological principles and then apply them. Finally, the student should be given practice in interpreting experimental data and to draw logical conclusions on the basis of the facts given.

The question now arises, "How can these objectives be most effectively attained?" In his attempts to present natural phenomena to the student, the biologist has long made use of visual aids. The naturalist has always and still does insist on studying animals in the field. Likewise, emphasis is placed upon the direct study of the animal in the laboratory. The Zoologist has long made use of dissections. He was the first to use the microscope, and it has been largely through its use in biology that the microscope has been developed. It is quite consistent then for the Zoologist to turn to the use of such modern devices as films and lantern slides to supplement these visual aids which he has made use of for so many years.

It was not until last year that teaching films were used in the General Zoology course here. There was some inertia to be overcome within the department, and the problems of equipment and availability of suitable films had to be solved. When the use of films is being considered for the first time, I suppose the attitude is always to be encountered "We don't want to turn our course into a picture show." However, this reaction soon gave way to one of definite support, after the first few films were tried.

To obtain suitable teaching film material, we were very fortunate in being able to turn to Mr. B. A. Aughinbaugh, Supervisor of Visual Education, associated with the State Department of Education of Ohio. He has placed the entire state film library and the services of his film exchange bureau at our disposal. We have made rather consistent use of at least a dozen films from this source, on a rental basis. We have found that these films can be effectively used to present as many topics. Recently we were able to purchase our own 16 mm. projector. It is one of the most recent Eastman models, and we consider it a worthwhile investment. At first, only one or two instructors were making use of the machine. Now on days when a film is scheduled to be shown, when two sections of the same course are running concurrently, the projector is carried back and forth between the two rooms so that each section from

*A talk given before the Visual Education Section, Ohio State Educational Conference, 1934. Ohio State University, Columbus, O.

eight o'clock on throughout the day can be shown the film, running on a half-hour schedule.

There are at least five definite situations in which films are used to advantage in presenting the material of General Zoology, as it is now being taught.

*First,* films are used to present demonstrations of experiments before large classes. During the past several quarters of work, the department has been carrying on an experiment to determine the effectiveness of teaching Zoology to students in groups of as many as a hundred, as compared with the effectiveness of teaching Zoology to students in the regular groups of thirty-five each. In dealing with the larger class, it is often difficult for the instructor to demonstrate the nature of various physiological processes as they occur in a laboratory animal the size of a rabbit or frog. The distance of many students in the room from the instructor's table acts as a limiting factor in their ability to see the demonstrations. A frog's leg attached to a lever arm on the instructor's table loses its significance when viewed by the student twenty-five feet away. On the other hand, a film which shows a comparable demonstration of the properties of the muscle action when thrown on the screen, enlarges the apparatus in such a way that everyone in the room can see the apparatus clearly in detail.

*Second,* films may be used to supplement other visual methods. A case in point is in the study of the circulation of the blood in the frog's webbed foot. The normal procedure is for each student to study the circulation in the webbing of a frog's foot, as well as the histology of the blood, under his own individual microscope. By following such a study with a film on the circulation of the blood and another on the nature of the blood, the subject may be amplified to an extent not possible otherwise in a given period of time. Furthermore, the instructor has the assurance that every student has seen the blood actually flowing, and it gives an opportunity to cover the essential features of the subject while the students' attention is focused on standardized material. Thus, the subject matter is enriched and the students' concepts are built up more uniformly.

*Third,* films may be used to apply physiological processes to the human body. All of the teaching films used, which deal with such processes, make these applications directly. Most students are interested primarily in this human application. Without films, physiological processes are limited in their demonstration to laboratory animals. Their occurrence in the human body is left to text book or oral descriptions. Even though manikins were used, manikins are always so inanimate. The animated drawings of the films and their use of the human subject illustrating these processes can hardly be duplicated.

Development processes in animals often involve the entire life history and consume days, weeks and even years. To observe them at first hand, the student would have to devote a disportionate amount of time, and often beyond the limits of the course. I refer to such processes as the metamorphosis of frogs, the life histories of many insects and the incubation of the chick. A *fourth* use of films, then, may be made here. In a film, the entire life history of a butterfly or mosquito, or the complete incubation of a chick, over a period of twenty-one days, may be reviewed by the student within the short space of fifteen minutes. Here, the instructor should set up two safeguards, to avoid misconceptions in the mind of the students. He should precede the film by a study of the critical stages in the life history of the organism using laboratory material, and he should take pains to emphasize the amount of time actually involved. The film will then serve admirably to bridge the gaps between the critical stages studied, and give the student an idea of the continuity involved.

Courtesy of Publishers Distributing Service.
**A Splendid Subject. The Mule Deer Doe.**

The *fifth* way in which films may be used to present animal life more clearly to the student is that of showing animals in their natural habitats. When possible the Zoologist should take his classes into the field to study animals at first hand and under natural conditions. But there are many limitations here. Unseasonable weather, class size and class schedules, and often considerable distances are involved. In the mid-western states, an instructor may take his classes occasionally to local streams and fields, but trips to mountains or seashore, the tropics or tundra must be relegated to the land of dreams. But with films, the limitations of season and distance mean nothing. One

(*Concluded on page* 267)

### Errata

We must point out, most regretfully, errors in two cuts accompanying Sybil L. Daniels' article, "Pupil-Made Lantern Slides," in the November issue. In the Butterfly slide, the upper twig shows a black "blob" on the upper side which has no place in the slide. The wasp slide is printed upside down. These blunders are the more regrettable in view of Miss Daniels' insistence upon and examplification of accuracy in all her work.

# Motion Pictures---A Device In the Teaching of Typewriting

ELEANOR SKIMIN — ETHEL WOOD

WHAT is a good teaching device? Any device that aims at a desirable objective and that can be applied economically in terms of time and energy is a superior teaching device. Some are more efficient than others, but the ultimate objective of all typewriting teaching devices is to teach the student precise movements and the precise "feel" of these movements. Dr. William F. Book in "Learning to Typewrite" says that the chief purpose of the teacher is to make the occasion of learning economical and efficient. This statement emphasizes the fact that teachers of typewriting should make use of those teaching devices that will provide the best practice in making precise movements and in acquiring the precise "feel" which will result in the most effective learning.

Teaching devices that motivate the student in his work are vital. There have been many devices introduced for the teaching of typewriting: Mechanical devices as the phonographs for regulating the rate of stroking and fluency; physical devices for hand gymnastics, correct posture, etc. Unlike other devices that have been devised for special learning procedures, the moving picture contributes much to the knowledge and requirement of skills in typewriting throughout the beginning and advanced courses. It provides motivation of the real kind, offers skill improvement, information which is essential to progress; teaches the pupil the right standards of work and self-criticism, and presents essential features of typewriting for attention and practice.

There is an important requisite to be fulfilled by the typewriting teacher in the use of any teaching device. He must understand its aim. No one can use any teaching device effectively and economically unless he undertsands its objectives and how to apply them efficiently. Many excellent teaching devices fail because both of these essentials are lacking.

Fundamental typewriter operations should be demonstrated in full view and with the concentrated attention of the class because most of us have a most unusual capacity for observing and imitating what we see. The film *Teaching Beginners How to Typewrite* made at the State College of Washington, Pullman, Washington, clarifies the points of typewriting technique that are fundamental in learning to typewrite, those points that many teachers of typewriting have difficulty in teaching — correct stroking, correct use of the shift key, proper carriage return, rhythm, inserting and removing paper, use of tabulator key, etc. This picture also illustrates definitely that increased speed comes from increased finger action when writing habits are correctly established during the early learning periods. Correct technique on one level will insure mastery on successive skill levels.

Contrast the inefficiency of an oral class analysis of finger exercises letter by letter and the efficiency of the demonstration by an expert on the screen with the positive and correct striking of the various keys. Visualize, if you will, the enthusiasm and the interest of the pupil to imitate the performance that he has just viewed on the screen. The motion picture as a teaching device in the subject of typewriting is considered useful because it facilitates the learning process, and prevents and eliminates tendencies to incorrect learning, and controls the physiological and psychological conditions under which the pupil must learn.

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**STATEMENT OF OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912**

**Of The Educational Screen and Visual Instruction News, published monthly except July and August, at Morton, Ill., for October 1, 1934**

State of Illinois, County of Cook, ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Nelson L. Greene, who, having been duly sworn according to law, deposes and says that he is the editor of The Educational Screen, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, The Educational Screen, Inc., 64 E. Lake Street, Chicago, Ill.

Editor, Nelson L. Greene, 64 E. Lake Street, Chicago, Ill.

Business Manager, Ellsworth C. Dent, 1812 Illinois St., Lawrence, Kansas.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

The Educational Screen, Inc., 64 E. Lake Street, Chicago, Ill.

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3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner: and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold and distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is ——. (This information is required from daily publications only.)

NELSON L. GREENE,
(Signature of editor, publisher, business manager or owner.)

Sworn to and subscribed before me this 1st day of October, 1934.

(SEAL) LYDA SHEA.

(My commission expires December 16, 1935)

# NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

## "Treasure Island" Study Guide

The first of a series of study guides issued by the National Council of Teachers of English, for use in teaching photoplay appreciation to high school students, is a guide on *Treasure Island*, from the Robert Louis Stevenson classic. The Council has prepared two manuals on the film—A Teacher's Key, and a Student's Study Guide. The leading paragraphs of the teacher's instructions include methods of presentation of the study to the pupil. It is suggested that the ideal plan for seeing the picture is to have the English class go to the theatre in a body, with a view to discussing the picture in class the following day.

A brief resumé of the literary source and production of *Treasure Island* is given, followed by an explanation of the method of the story's transcrpition to the screen. There is a complete outline of the historical research, settings and properties employed in the production, besides a brief plot, and character study.

The student's guide, in the introduction, includes such questions as: "How did Stevenson come to write *Treasure Island?*" "What elements make the book good material for a photoplay?"

A plot study, in which students are asked the reasons for certain actions and incidents in the film, includes such questions as: "In the book Dr. Livesey and the Squire study Jim's map and gradually realize its significance. In the film they understand and act at once. What is thus gained? Where does suspense begin in the photoplay?" There are questions concerning characters and acting, the accuracy of the film's dialogue compared with the book; the effect gained by the musical score; the photography, and the work of the director. Finally come questions for the students as to whether the film inspires him to high ideals and whether he has learned anything "about life" from it.

## Geography Teachers to Hold Meeting

The National Council of Geography Teachers will meet in Philadelphia, December 26 and 27, 1934.

Wednesday morning will be devoted to discussions of geographic field work and its relation to planning toward better utilization of natural resources. Mr. Earl Hanson, of the Water Resources Section of the National Resources Board will discuss geographic research in national planning. The morning program includes reports of specific field work as it now is being carried on in given college, high school, and elementary classes, and suggestions for capitalizing further opportunities for such work.

The Wednesday afternoon discussions will center on "Developing Independence in the Use of Geographic Tools." The Thursday morning session will stress urban studies. These will be followed by a discussion of "Organizing Urban Material for Classroom Use" by specialists in this field. Doctor William Scott Gray of the University of Chicago, so widely known for his recent intensive studies in the education of teachers, will be the guest "educator" of the 1934 meeting, and the first speaker Thursday afternoon. This session will be devoted to Teacher Education.

## State P. T. A. May Ask U. S. to Make Educational Films

A national motion picture institute, to be maintained by the United States bureau of education, to produce and distribute educational films, is sought in a resolution scheduled for approval by the directors of the Illinois Congress of Parents and Teachers in their recent quarterly business meeting in Chicago.

The resolution was presented by a subcommittee named to study the possibilities. State university extension divisions and boards of education are asked to cooperate in the movement.

## Catalogs of Visual Material

■ International Educational Pictures, Boston, have issued a 12-page illustrated Fall Supplement to their general 36-page hand-book of "Motion Pictures of the World and Its People," which appeared last February. The supplement is similar to the original catalog in size (8½ x 11), arrangement of subject matter, and typography. A 4-page folder on a collection of art films distributed by them has also been newly prepared. Both catalogs are available free to subscribers to their service.

■ Although "Materials of Instruction—Which May Be Obtained Free or at Small Cost," compiled by Edna Richmond of the Fairmont, West Virginia, State Normal School, is not a new publication, it has but recently come to our attention and impresses us as a most valuable teacher's aid. Booklets, charts, samples, and other exhibit material from hundreds of sources are classified under such subject-headings as Health, Industries, Safety, Store and Food Material, Science, Transportation,

and Travel, supplemented by information on lantern slides, maps, moving and still pictures. The book is well worth the 75c charge.

■ The current catalog of slides and films available from the Visual Instruction Exchange of the Ohio Department of Education, Columbus, shows a notable increase of rental material. The collection includes the Yale "Chronicles of America," Eastman and Harvard University films, Keystone and Victor slides, Spencer filmslides and many Stillfilms.

■ The Bell & Howell Company has just compiled a selective catalog telling where 16 mm. silent films dealing with geography, travel, and natural resources can be secured on a free loan basis. The catalog, consisting of 40 mimeographed pages, 8½ by 11 inches in size, gives names and descriptions of such films. Also listed are the names of firms and other organizations furnishing the films. Copies will be mailed on request by Bell & Howell Company, 1801 Larchmont Avenue, Chicago.

■ An attractive 128-page pamphlet entitled "Lifelong Learning" lists the 35 mm. and 16 mm. motion pictures loaned by the University of California Extension Division, Berkeley. The Division also offers prints and slides of the "Pictorial History of California" at nominal rates.

## Use of Films in Zoology Teaching

(*Concluded from page* 264)

minute, he can take his class to the seashore, and through the eyes of the camera watch starfishes going about in tide-pools; the next instant, he can traverse a continent and see mountain goats climbing rocky crags of the high Sierras. With such films, ecological relationships and the distribution of animals takes on new meaning. As an illustration, I have in mind a film on Rocky Mountain mammals. Here, a great mountain slope is shown with its several zones of vegetation. During the course of the film, the key animal types of each vegetation zone are shown feeding and living in their natural habitat. Their relationships to topography, altitude, and food supply are clearly shown. The predatious coyotes and mountain lion are shown inhabitating the same zones as the antelope upon which they prey. In discussing the film after it has been shown, students are quick to state these relationships. What does it mean to the untravelled, city-bred student for the instructor to stand before the class, distribution map in hand, and state that in the plains bordering the Rocky Mountains, coyotes prey upon the antelopes? But when these beautifully marked antelopes are shown in the film, grazing and galloping over these plains, antelopes begin to mean something to the student. The snarls of the coyote, his slinking, stealthy tread, help characterize him in the role of the bloodthirsty killer that he is. For the instructor to state that the coyote is essentially a plains animal, and that it rears its young in the underground burrows, the statement of that fact can scarcely have the lasting impression that the student gets from the film. In the picture two workmen are shown digging into such a den, at shoulder depth. Soon they reach the lower chamber. There fully exposed lie four round, furry, coyote cubs. The men pick them up. The cubs seem tame as kittens. A murmur is heard throughout the room. A co-ed says, "How cute they are!" There is real enthusiasm!

At this point, the reader may ask, "But how much difference in students' performance does the use of films make?" "Is there a measurable difference which will show up in a statistical analysis?" May I say that no definite attempt in an experimental way has been made in this department to test the efficacy of film teaching. For such data, may I refer the reader to such comprehensive studies as reported by Rulon* and others. I might state, however, that such data as we have obtained indirectly on this point, is in favor of film teaching. In connection with the statistical analysis of the results of the large section teaching experiment, referred to above, forty items in the comprehensive examination which had been covered with teaching film material in the experimental sections were compared with the same items in sections taught without the aid of films and they were also compared with forty items chosen at random in the experimental sections, not treated in the films. In both comparisons, the percentages of students' correct answers were somewhat higher in the film-taught items.

The attitude of the staff in General Zoology at the Ohio State University may be stated, I think, as one which regards the use of teaching films in General Zoology as a valuable means of supplementing other visual aids in presenting the subject matter of this course to students. The emphasis here is placed on the idea that films are to supplement, rather than in any sense supplant such time-tested methods as the direct manipulation of actual materials, dissection of specimens, and their study under the microscope.

There is a definite need for the construction of educational films for use on the University and College level. Such films should be built as units of subject matter closely coordinated with the materials of the courses taught. They could well be more technical than films we now have, and develop their subjects in greater detail. The Biological field offers abundant opportunity for the production of many educational films on subjects which are not now available. University staffs in the biological sciences and the film producers should certainly get together and work on a cooperative basis toward the production of such films in the future.

**References: Rulon, P. J.—The Sound Motion Picture in Science Teaching. Harvard Studies in Education, Vol. 20, xi + 236 pp. Harvard Univ. Press, Cambridge,* 1930. $2.50.

# THE FILM ESTIMATES

**Being the Combined Judgments of a National Committee on Current Theatrical Films**

*(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)*

**Estimates are given for 3 groups**
**A—Intelligent Adult**
**Y—Youth (15-20 years)**
**C—Child (under 15 years)**
**Bold face type means "recommended"**

**Anne of Green Gables** (Ann Shirley, Tom Brown) (RKO) Congratulations to the Industry for so splendidly capturing the refreshing human appeal of the well-known story. Little star a delight as imaginative orphan taken in by the frosty spinster and her gentle bachelor brother—notable roles by Helen Westley and O. P. Heggie.
A—**Charming** Y—**Excellent** C—**Very Good**

**Captain Hates the Sea** (Victor McLaglen, John Gilbert) (Columbia) Rollicking, finely acted story of single voyage by colorful shipload of assorted humans, good, bad and crooked. Much drinking only objectionable feature in lively and amusing episodes. Real character interest and the fun ends logically with personalities unchanged.
A—**Amusing** Y—**Perhaps** C—Doubtful

**Case of the Howling Dog** (Warren William, Mary Astor) (Warner) William as "Ferry Mason" of the Liberty stories plays tricky lawyer-detective in crisp, emphatic style, solving wife-stealing murders by spectacular super-sleuthing. Plot involved, not always clear, hence as much bewilderment as surprise.
A—Fair of kind Y—Doubtful C—No

**College Rhythm** (Joe Penner, Jack Oakie, Mary Brian) (Paramount) Vacuous, hilarious farce about jazzing up department stores with ballet-dancing sales-girls, radio crooners, and pro-football teams. Oakie is the painfully conceited football hero. Penner's idiocies and Lanny Ross' pleasant singing are "features."
A—Absurd Y—Ridiculous C—Not the best

**Crimson Romance** (Ben Lyon, Von Stroheim) (Mascot) Confused romantic melodrama of 1916 packed with thrill air fights—and too much else. American hero enlists with German pal in German army, but deserts when America enters. Both love same girl till air duel gives grim decision. Acting below par.
A—Hardly Y—No C—No

**Dude Ranger** (George O'Brien, Irene Hervey) (Fox) Zane Grey western story with more human interest and naturalness and less gun-play than usual. Young easterner inherits ranch, arrives incognito, and reveals himself when certain wrongs are righted. Elementary plot and acting but wholesome amusement.
A—Hardly Y—Fair C—Rather good

**Flirtation Walk** (Dick Powell, Ruby Keeler) (First Nat'l) Pleasant musical romance with colorful settings and appealing little love story which begins in romantic Hawaii and ends at West Point where cadet-hero wins honors and the general's daughter. Stirring drill scenes and amusing glimpses of cadet life.
A—**Pleasant** Y—**Entertaining**
C—Probably good

**Gridiron Flash** (Eddie Quillan, Betty Furness) (RKO) "College" stuff with unique idea. Respected college alumnus smuggles tough young jail-bird football player into his Alma Mater to win games and make easy money on side by robbing trustful victims including the President! Moral ending tacked on the mess.
A—Mediocre Y—No C—No

**Girl of the Limberlost** (Louise Dresser, Ralph Morgan) (Monogram) An adaptation of Gene Stratton Porter's very popular and sentimental story. Much of the charm of the original has been lost by omissions and by over-emphasis on the morbid theme of mother hating own daughter for a fancied wrong.
A—Hardly Y—Better not C—No

**Great Expectations** (Henry Hull, Jane Wyatt) (Universal) Splendid screening of Dickens' masterpiece, retaining characters, plot and narrative manner with fidelity, dignity and charm. Acting and directing notable. Outstanding roles by Henry Hull, Florence Reed, and George Breakston. A real achievement.
A—**Excellent** Y—**Excellent** C—Too mature

**Happiness Ahead** (Dick Powell, Josephine Hutchinson) (Warner) Honest attempt at wholesome comedy that amuses, about rich heroine tired of society seeking her fun among common people and finally marrying window-washer hero with her father's help. John Halliday as the father is the oustanding feature.
A—**Pleasing** Y—**Very good** C—Fairly good

**Kentucky Kernels** (Wheeler and Woolsey) (RKO) Utterly crazy nonsense farce, hokum and hilarity, which does not use vulgarities for laughs. The engaging youngster with irresistible penchant for smashing glass, and the Kentucky feud shootings, make it, unfortunately, dubious fare for children. Inane fun.
A—Good of kind Y—Probably good
C—Doubtful

**Lemon Drop Kid, The** (Lee Tracy, Helen Mack) (Paramount) Damon Runyon yarn with hero a breezy crooked bookie of sordid background and instincts. Meets, marries, and is reformed by heroine. She dies, he relapses into jail but their baby works reform again, this time permanently. Feeble production.
A—Mediocre Y—No C—No

**Limehouse Blues** (George Raft, Jean Parker) (Paramount) Sordid melodrama laid in London's Chinatown, with unpleasant characters and unhealthy atmosphere. Raft, as wealthy, unscrupulous half-caste Chinese smuggler falls in love with his white protegee and sacrifices his life to save her sweetheart.
A—Hardly Y—Unwholesome C—No

**Loud Speaker, The** (Ray Walker, Jacqueline Wells) (Monogram) Mild, innocuous story of irrepressible, wisecracking, small town boy who becomes successful radio star. His conceit loses him his job and girl, but he recovers both after learning his lesson. Rather amusing in spots.
A—Mediocre Y—Harmless C—Little interest

**Merry Widow, The** (Maurice Chevalier, Jeanette MacDonald) (MGM) Gorgeous, hilarious, fast-moving, tuneful operetta, jazzily modernizing original beyond recognition. Hero is irresistible lady-killer, arms always full of joyous victims, his big task being to seduce heroine. He fails, so the poor censors are helpless.
A—Good of kind Y—Pernicious C—No

**Moonstone, The** (David Manners, Phyllis Barry) (Monogram) More or less of the old Wilkie Collins mystery story screened. Moonstone diamond, once stolen from Hindu temple, brings grief and tragedy to all it touches. Fantastic solution through oriental drug inducing revelations during sleep-walking.
A—Mediocre Y—Hardly C—No

**Peck's Bad Boy** (Jackie Cooper, Thomas Meighan) (Fox) Resembles book only in title. Simple, appealing story of boy life and little hero's fine, understanding relationship with father until scheming relatives inject temporary unhappiness and misunderstanding. Some pathos but mostly amusing, wholesome, and human.
A—**Pleasing** Y—**Very good** C—**Very good**

**Pursued** (Rosemary Ames, Victor Jory) (Fox) Lurid sex melodrama of Far East sea-front cabarets and jungle islands. Scarlet heroine finds hope and inspiration in wholesome hero, but heavy villain, much overacted by Jory, nearly defeats "true love," till heroine shoots her way to a happy ending.
A—Hardly Y—No C—No

**St. Louis Kid, The** (James Cagney, Patricia Ellis) (Warner) Familiar Cagney type picture, lively comedy with plenty of "action," fighting and roughneck characters. Hero is hard-hitting truck-driver always in trouble with the law and heroine. But clears himself and wins girl by rescuing her from racketeers.
A—Hardly Y—Not the best C—No

**Student Tour** (Jimmie Durante, Chas. Butterworth) (MGM) Absurd hash with idiotic plot about "college" crew and co-eds in shorts jaunting around the world, with a blatant coach, a stupidly caricatured professor, and stale Durante antics as supposed "comedy." Stupid crew race climax and banal dialog throughout.
A—Painful Y—Trash C—No

**That's Gratitude** (Frank Craven, Mary Carlisle) (Columbia) Inferior story about the thanklessness of human nature for benefits received, about the losing struggles of a broken-down theatrical producer, and the labors of a hero steering others to fame and happiness. Much drinking and many words.
A—Mediocre Y—No C—No

**365 Nights in Hollywood** (James Dunn, Alice Faye) (Fox) Stupid title for feeble mixture of farce and musical comedy. Former film star, reduced to directing in fake dramatic school, discovers new blond star and makes successful comeback. Slapstick comedy and elaborate dance numbers features. Harmless, but dull.
A—Mediocre Y—Worthless C—No

**Tomorrow's Youth** (Dickie Moore) (Monogram) Ordinary film intended as strong preachment against divorce, but without much distinction in situation or acting, except for appeal of child actor. Situation where he becomes judge at divorce hearing and brings about reconciliation of parents, decidedly far-fetched.
A—Hardly Y—Perhaps C—No

**Transatlantic Merry-Go-Round** (Nancy Carroll) (U. A.) Hectic series of exciting events on transatlantic liner, with smooth thieves, gamblers and shady characters getting virtuous heroine very much involved. A detective on vacation takes care of incidental murders. Fast tempo, radio-singing, jumbled ethics.
A—Depends on taste Y—Unwholesome C—No

**We Live Again** (Anna Sten, Fredric March) (U. A.) Serious, impressive, elaborate, humorless drama. Best screening yet made of Tolstoi's Resurrection. Russian peasant heroine, seduced by noble, military hero, is wrongly sentenced. Repentant, he pauperizes himself to share her exile. Notably well acted.
A—**Very good of kind** Y—Very mature C—No

**What Every Woman Knows** (Helen Hayes, Brian Aherne) (MGM) Masterpiece for intelligent enjoyment. Screen can do no more with Barrie's classic. Splendid acting and direction. Scotch atmosphere, temperament and accent convincingly done. Barrie humor, whimsy, charm, and poignancy intact. Hayes and Aherne in finest roles to date.
A—**Excellent** A—**Excellent**
C—Doubtful interest

**Young and Beautiful** (William Haines, Judith Allen) (Mascot) Feeble production about Hollywood press agent whose excessive commercial instinct nearly loses for him his sweetheart. Backstage scenes, Wampas Baby Stars, musical revue stuff are other elements in the lukewarm mixture.
A—Feeble Y—Hardly C—No

# AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

**Sierra Educational News** (October, '34) "The Motion Picture Camera in the School," by Harold O. Boos.

"It is an undeniable fact that the motion-picture projector has come to stay," declares the writer. The camera, however, is still unusual in schools and should not be. Mr. Boos has found there are limitless uses for the camera. In the school of which he is principal, it has improved athletic form, health, and fire drills, has contributed to nature study classes, and has stimulated interest in the school's activities.

**International Review of Educational Cinematography** (September, '34) "Cinema and Teaching," by E. Duvillard, Director of Schools, Zurich.

From this very comprehensive and lengthly article a few excerpts are made. "If the influence of the scholastic cinema has penetrated so slowly, it is because man is not master of his own thoughts. He modifies their course and form very slowly and such changes as occur are arrived at only after a long and often painful process of adaptation. . . . Although man is continually seeking to free himself from it, he tends, by his very nature, to be a victim of verbalism. In order to escape a slavery of this kind, he tries in every way to fix his errant thoughts, and among all the means so far suggested the motion picture seems the one likeliest to give him the independence he desires." The author cautions educators against relying solely upon tests of retention of projected images. "The object of teaching is not the acquisition of certain notions, but the acquirement of an intellectual technique, through which, when the pupil is freed of the tutelage of school, he will be able to reflect and study by himself."

"There is no machine which teaches us to see better than the cinematograph, on condition that its pictures have been well chosen and are projected in a clear and intelligible vision. The motion picture is the means which allows us to put forward real facts in such a way that they can readily be grasped, to present them with great precision and with a rhythm that harmonizes with the needs of the spirit."

In the same issue of the International Review appears "The Use of the Cinema for Teaching in Secondary Schools, by Prof. Brucker, Supt. of the Rollin College, Paris.

"The comment should be brief and synthetic. In most cases, the film should not need explanations. What then, is the cinema's strong point? Without doubt it is the power of registering and representing movement. From this point of view, the cinema is indispensable and its importance in supplementing work is such that there should be no hesitation in using it, in spite of the difficulty of regulating and managing the apparatus or on account of the expense."

**Education—Visual Education Number** (October, '34) This special issue, edited by Dr. F. Dean McClusky, is particularly significant to our readers as it contains a wealth of material on visual instruction, beginning with Dr. McClusky's own contribution, "Basic Values in Visual-Sensory Instruction."

He stresses the value of concrete imagery in the learning process versus the importance of verbal imagery. Photography and sound reproduction have so greatly altered materials of instruction that the approach to learning is necessarily by a different route than that formerly traveled. "The gap between verbalism and doing has been the will-o-the-wisp of educators for centuries. A child may be taught with relative ease, to recite rules of good behavior, but to teach a child to behave in accordance with these rules is most difficult." Today, children are beset with so many verbalisms of a conflicting nature that a state of confusion concerning conduct results. "Some means must be developed to clarify the language of our experts, faith must be reestablished in our leaders and schools must devise a way to translate verbal patterns into intelligent human behavior. We need more directness of speech, more parables, more word pictures, more actual pictures, more visualization, more of real living in teaching. School boards should spend as much for visual sensory materials as they do for books. To see, to hear, to smell, to touch, to taste is the essence of life. Words merely describe it. Teachers who depend solely upon books are failing the child and are misusing the books as well." A brief historical survey is made of the use of visual instruction materials from primitive times to the period of printing, the misuse of which has resulted in linguistic mechanization. The article closes with ten basic values of visual-sensory instruction.

Cline M. Koon, U. S. Bureau of Education, reports succinctly and fully the proceedings of the International Congress of Educational Cinematography, which met in Rome, April 19-25, 1934, and was opened by Premier Mussolini and M. Avenol,

Secretary General of the League of Nations.

Wilber Emmert, President of the Department of Visual Instruction of the National Education Association, treats "Visual-sensory Aids in Education," dealing particularly with visual education courses for teacher training and the use of posters and booklets. A full technique for making and using booklets and posters is elucidated. "The Place of Sound Films in Instruction" is analyzed by M. Brodshaug and M. R. Brunstetter. "Talking-Slide-Films for Visual Education Purposes" are described by Arthur Heine. "Visual Trends in Religious Education" by Bernard E. Meland covers this field both in Europe and America. "The Educational Museum" is discussed by Eugenia L. McCord as it is organized and administered in various cities. "Visual Aids in Scouting" by F. B. Monson is richly suggestive. An interesting testing use is made of pictures in individual out-door demonstrations.

"Mechanical Aids to Education and the New Teacher—A Prophecy," by Dr. Howard Y. McClusky of the University of Michigan, predicts a new technology of education. Since tools largely make the culture of an epoch, radio and motion pictures will tremendously affect our curricula. "Entire courses of study will be outlined in terms of these mechanical aids." This does not mean that there will be no function left for the teacher, but that there will be a decided change of function. The teacher in the capacity of adapting and revising the presentations will appear rather more in the role of a supervisor. The teacher will become an expert in clinical psychology with the aid of technological means. Since institutions cannot handle the burden of insanity, increasing through maladjustment to an environment becoming more and more complex, nor the increasing crime, there must be a vast program of mental hygiene instruction. Teachers are already over-loaded, and the supply of trained experts is insufficent for the need. Technology must carry the load. This new program will free the teacher from routine and enlarge her personality. She may even extend her services to preventing mal-adjustment in the new fields of adults and pre-school children.

An account of the work of the Motion Picture Research Council, supported by the Payne Fund, for the past seven years, is given by William H. Short, with an outline of future plans. One year was spent upon laying the groundwork for building a policy. The results of the succeeding fact-finding have been published in ten volumes by the Macmillan Company. Two volumes have been awarded the annual medal for outstanding works on education by the Parents' Magazine, and first mention by the American Education Research.

Mr. Short's article is followed by one of the studies subsidized by the Payne Foundation, "Do Motion Pictures Conflict with Standards of Morality?" by Robert P. Wray. The chief conclusion is, "Movies are in marked conflict with the *mores* in respect to aggressiveness of the girl in lovemaking, but are above the *mores* in regard to democracy, and in the treatment of children by their parents."

**World Unity** (October, '34) In an extensive report of the International Congress of Cinematography, meeting in Rome, difficulties overcome are mentioned along with two pages of problems yet to be considered. "It is now universally recognized that the motion picture must form an integral part of teaching; that its value is greater than that of other visual aids, even though there may be subjects where the use of the lantern slide, models or laboratory experiments are more useful. . . . It is clear that the double use of text-book and film must harmonize with scholastic programmes, or rather *vice versa*, since it is perhaps more logical that new curricula and new methods of study should appreciate and follow the value of the motion picture in the school and conform themselves to its use and wider diffusion."

## Book Review

WHAT ABOUT ALCOHOL? by Emil Bogen, M. D. and Lehmann W. S. Hisey. Scientific Education Publishers, Los Angeles.

This book is a notable achievement, small in size, unique in presentation, highly significant in content. It aims to be, as its subtitle modestly states, "an illustrated outline of scientific facts about alcohol and alcohol drinking." It succeeds splendidly. In some 90-odd pages of large readable type, with more than fifty line drawings in chart and poster style, it presents completely and impartially the fundamental facts about alcohol in most convincing manner. The expertly written text, with the pen-and-ink illustrations always intimately pertinent to the text, make a visual-verbal appeal that is educationally an ideal combination. Wisely also the publishers are ready to supply seventeen of the illustrations in lantern slide form, still further enhancing the value of the work for school and club purposes.

In simplicity of language, clarity of explanation, vividness of illustration, the little book is nothing less than a masterpiece of scientific presentation. From cover to cover the authors' purpose is evidently to present facts, not propaganda—scientific truth, not a sermon. It is left to the reader to pass upon the evidence and decide freely for himself what his own course of action is to be. The authors have seen to it merely that the evidence shall be true and clear. For any reader, young or old, in school or out, this volume must prove profoundly interesting and valuable. The problem of alcohol can hardly be put in more comprehensive and more telling form.

# DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

## An Open Forum

It has been suggested that Department of Visual Instruction Notes be made an open forum for the discussion of problems of the Department with which the central office is confronted. As an experiment in keeping with that suggestion, some of the major problems are mentioned below. If these bring forth helpful discussion, other problems will be mentioned later.

Pertinent discussions received from Department members will appear in succeeding issues of this magazine. It is hoped that by thus exchanging ideas, some helpful suggestions will be received by all readers.

### The Convention Problem

Before the merger of the National Academy of Visual Instruction with the Department of Visual Instruction of the N. E. A., each organization met once each year. The Academy met with the superintendents in February and the Department met with the National Education Association during the summer. Some feel that two meetings should be the practice; the winter meeting devoted to administrative and the summer to teaching probblems. Two meetings require approximately twice the time, energy and expense required for one. Some of the same persons attend both, but several new persons are present at each meeting. What do you think about it?

### The Publicity Problem

Any organization which depends upon the interests of many for its existence cannot live without publicity. All worth-while publicity requires much time, effort and careful planning. There should be press releases, special articles, magazine departments, and bulletins. There are enough possible legitimate avenues of publicity to require the full-time attention of a competent person. The attempts which have been made are rather feeble, compared with possibilities.

At each meeting of the Department, enthusiastic and inspired members agree to provide notes of interesting happenings, discussions of visual instruction projects, etc., for publication. Usually, the President and one or two members of the Executive Committee remember their promises and do something about it. Apparently the others do not. Again, expense is an item of consideration, but it should be possible to secure at least one article per month worthy of publication in national and international journals. Do you agree or disagree?

### The Problem of Membership Dues

There would seem to be a division of opinion regarding two or three possible types of membership. One group would prefer a low annual fee, possibly $1.00 or $1.50, covering affiliation with the Department only and omitting such special services as magazine subscriptions, for example. Others would prefer membership dues of $2.00 or would advance dues to $2.50 or $3.00 and include as many special services as possible, including magazines, film directories, etc. In either case, a definite attempt would be made to popularize the Department and increase the membership as rapidly as possible, including all those who use visual aids or may be interested in them.

Another group would change the Department of Visual Instruction into a rather exclusive organization, admitting to membership only recognized visual instruction directors and research workers. Each member would be asked to meet rather strict admittance requirements. The annual membership fee might be advanced to $10.00 or $15.00, thus building a fund to be employed in conducting research and giving appropriate publicity to the findings. Consulting and recommendation services would be available at a fee commensurate with the time and effort involved. The whole organization would be strictly professional and would serve as a guide to visual instruction practice and procedure.

As a research group of high quality, the Department would seek the support of trust funds, industrial organizations, etc., to establish permanent headquarters and staff in a city which would offer greatest access to those individuals and organizations primarily interested in the field of visual instruction. It would serve as a clearing-house of information and research, offering reliable service to the educational field.

There are some who feel that there is room for both types of organization in the widening field of visual instruction: (1) the small, specialized research group and (2) the large group of visual instruction workers who are interested in applying the findings of science to the instructional problems of the classroom. What is your idea?

### Renewals of Old-Timers

It has been interesting to note the number of former members of the Department who are having

# A Visual Instruction Handbook

*by*
**ELLSWORTH C. DENT**

Approximately 100 pages of pertinent, up-to-date and useful information concerning the various types of visual instruction materials and equipment, intended for (1) teachers, supervisors and school executives who desire a compact review of common practice in the use of visual-sensory aids, as well as a guide to sources of materials and further information, and (2) students in visual instruction courses, whose desires should be much the same.

**In paper, $1.10, postpaid. In cloth, $1.60, postpaid.**

Orders should be directed to—

**Bureau of Visual Instruction**
**Brigham Young University**
**PROVO, UTAH**

***(Orders for one to five copies should be accompanied by check or money order.)***


their names re-entered on the rolls. It is a sign of something or other, but no attempt is made to explain it. One suggestion would be that times are better. It may be the realization that any profession in which one may be engaged deserves some centralization of affairs for the protection and guidance of those thus engaged. And it may be just plain economics, calculated definitely to take advantage of approximately $3.50 in service at the annual membership fee of $2.00. In any case, it is fine to have the former members back into the organization. Some are mentioning the names of others who should be interested, and such tips are most helpful.

---

*Application for Membership*

Department of Visual Instruction,
National Education Association,
1201 Sixteenth Street, N. W.,
Washington, D. C.

Gentlemen:

I hereby apply for Active Associate Membership in the Department of Visual Instruction and attach a remittance for $2 to cover dues until September, 1935, including magazine subscription and other services.

Name: .....

Address: .....

I would suggest that information concerning the Department of Visual Instruction be sent to the following:

| Name | Address |
|---|---|
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |

## Summer Meeting in Denver

Robert Collier, Jr., Denver member of the Executive Committee of the Department of Visual Instruction, has extended an invitation to the members of the Department to a beefsteak fry at his cabin in the Rocky Mountain National Park. This should prove a strong incentive for members to attend the conference next summer.

## Pennsylvania Makes Visual Education Course Mandatory

On October 10, 1934 the Pennsylvania State Council of Education in conference in Harrisburg passed a resolution to the effect that beginning September 1, 1935, no permanent license to teach in the public schools of the Commonwealth would be granted to any applicant who does not show evidence of having had a laboratory course in visual-sensory techniques. This procedure closes the gap which has existed since the State Teachers Colleges made the visual education course mandatory. This laboratory course in visual-sensory aids must now be given in the Arts Colleges and the Departments of the Universities giving teacher training work as well as in the State Teachers Colleges. The Department of Visual Instruction of the National Education Association at the Los Angeles meeting in July 1931 recommended that all states of the Union make mandatory the action just taken by Pennsylvania. This action by the State Council means that Pennsylvania is the first State in the Union to put the measure into effect.

During the summer, 1,104 men and women took the course, it was reported, and several are said to have obtained positions. City educational authorities have approved the American Children's Theatre, Inc., about to establish Theatre of Young America in the Cosmopolitan theatre, New York. Its aim is to provide "wholesome entertainment for the school children of New York," declared George J. Ryan, president of the board of education.

## Wisconsin Visual Group Meets

The Visual Education Section of the Wisconsin Teachers Association held the following program at the state convention in Milwaukee last month, under the chairmanship of Robert Warburton, Principal of the Woodrow Wilson Junior High School, Manitowoc.

Address: "Comparative Value of Silent and Talking Pictures as Teaching Devices"—J. E. Hanson, Bureau of Visual Instruction, University of Wisconsin, Madison.

Address: "Report of the Status of Visual Education in Wisconsin"—S. P. Unzicker, Roosevelt Junior High School, Fond du Lac.

Address: "Visual Aids in Teaching Science"—Donald K. Lewis, Red Wing, Minn.

"The Yangtze-Kiang is the greatest river in China. On it vessels of all kinds ply into the interior. Miles of rice fields line its shores—and here the coolies wade knee-deep in water, tending the plant which gives them most of their food."

# Attention Value Doubled . . .

## *when* SOUND *brings Motion Pictures to life!*

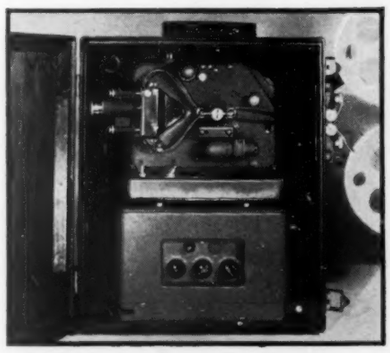
## *the* RCA 16 mm. Sound Projector

MOTION PICTURES come to life for children when they can *hear* as well as see! Their interest becomes sharper—their memories are more retentive.

It takes the new RCA 16 mm. SOUND PROJECTOR, compact adaptation of the famous RCA theatrical sound projector, to bring SOUND into the classroom with faithful, full-toned, brilliantly life-like reproduction. And its operation is so simple and quick, its mechanism so compact, that it does away with classroom disturbance when it is being set up and run. Its volume is ample for auditorium use, yet easily controlled for small classroom use.

In threading, but a single sprocket is used, and the gate is easily accessible. The proper size of the loop is automatically determined by pressing a lever, so synchronization is always perfect. Pilot light and all controls are accessible from the operating table. A positive indicator insures proper sound or silent speed.

*The RCA 16 mm. Sound Projector reproduces both sound and silent film*—making available to you a library of thousands of sound and silent films for instruction.



# RCA 16 mm. SOUND PROJECTOR

16 MM. DIVISION, RCA VICTOR COMPANY, INC., CAMDEN, N. J.

# SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

## Standards and Techniques for Making Posters and Booklets

(Concluded from November issue)

WILBER EMMERT

THE BOOKLET can be used to bring out principles, develop habits, abilities, and skills. The booklet can be a source of satisfaction, pride, and joy. Beautiful booklets can be made by children in all grades of school work. One booklet can tell the teacher many things about the pupil: Does he really understand his problem? Can he select from the mass of materials those significant items which tell the story effectively? Can he organize materials well? Is he neat in his work? Can he use his art, his English, and his mathematics to advantage? Can he follow directions? Is he creative in his work? Does he pride himself in the work done? Does he strive for accuracy, beauty, and high standards of excellency? Are these attitudes, habits and skills reflected in other phases of his school work? These and many other other questions might arise in the minds of persons viewing the finished booklet. The answers to the questions would be found by a study of the booklet itself.

The construction of the booklet involves a clear understanding of the problem to be solved, the objectives to be attained, collecting materials, selecting representative specimens, organizing the materials, displaying and presenting them, and binding the materials into the finished volume.

The following outline, entitled, "Standards for Making Booklets," has proved to be a very helpful guide to both students and teachers. Try it and test its value. Remember that the booklet is a "little book," with the essential features of a book but in an abbreviated form. Follow the standards closely and do not accept a hodge-podge of disorganized materials from pupils. Insist on high quality products and the children will respond in kind.

### Standards For Making Booklets

A. Standards for Selection of Materials for Booklets
   - I. Materials must:
     1. Create an atmosphere
     2. Bring out principles
     3. Excite interest
     4. Bring before the pupil definite facts
   - II. Pictures must:
     1. Show clearly the point desired
     2. Be simple (Complicated pictures confuse the reader)
     3. Have one object rather than many
     4. Show actual conditions
     5. Be selected to tell a connected story
     6. (Colored pictures are preferred in the lower grades)

B. Standards for Organizing the Materials in Booklets
   1. Materials should be arranged in unit sets
   2. There should be a title page descriptive of the unit
   3. Subject matter should not be on the same page as the pictures and other illustrative materials
   4. Pictures and illustrative materials should be mounted on one side of the paper only
   5. A preface, table of contents, and fly leaves must be included

C. Making the Cover
   1. Title should be simple
   2. Lettering used should be large and plain
   3. Cover should contain
      a. Title only, or; b. Title and design; c. Title

(*Concluded on page 276*)


***Profit by the Experience of the Most Critical***

**THE HOLMES EDUCATOR**

Sound on Film
Standard 35mm

**Projector**

meets the most exacting requirements of leading Film producers.

THE REASONS—Ball Bearing Mechanism Projector and Sound Head one unit—all moving parts in a sealed tight housing.

COMPARE the new EDUCATOR with any equipment selling for $1000 or more.

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*Free One Year Demonstration Guarantee*

We Invite Comparison Tests

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*"Motion Picture Projectors Since '97"*

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# Your Guide

## to the Biggest and Best in Current Motion Pictures!

*Now Available---*

### "SYMPHONY IN SIGHT"

A translation of Brahm's music into moving abstract figures. Brahms' Hungarian Dance rendered by a 150-piece orchestra is reproduced with a picturized fidelity that even a deaf person can recognize and enjoy.

THE EDUCATIONAL SCREEN in its review of this subject, says:—

"It is safe to say nothing has been done before like this production by Oscar Fischinger in Berlin, distributed in this country by Universal Film Exchanges. In a brief but exceedingly original film he seeks to give an interpretation in light as an accompaniment to a musical classic. The sound track gives a Brahms' Hungarian Dance, while the screen supplies a play of moving light forms, endlessly varied, perfectly synchronized, giving a visible counterpart of every audible effect produced by the orchestra. Tempo, rhythm, crescendo, climax, shading, phrasing—in short, all the elements involved in musical expression.

"All is continuous flow and incessant movement—swift, slow, straight, spiral, wavy, tremolo —always in the exact rhythm of the music. It is movement in harmonic accord with sound. It is rhythm made visible and vivid."

*Write for Further Information*

NON-THEATRICAL DEPARTMENT

**UNIVERSAL PICTURES CORPORATION**

ROCKEFELLER CENTER NEW YORK, N. Y.



DA-LITE

**Offers You a Real Selection in Motion Picture Screens**

# THE CHALLENGER

**Shown below is only one of sixteen models.**

- The Challenger type screen is made in sizes from 40 inches to 94 inches.
- A complete screen unit. Adjustable in height — folds compactly — will stand anywhere. Trouble-proof, and extremely efficient.
- Other models, box, table, and wall types made in sizes ranging from 30 inches to 144 inches.
- Your choice of white, silver or beaded fabric.

There is only one way to judge a screen—by its performance. Try a Da-Lite and see the difference.

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CHICAGO, ILLINOIS

A New Motion Picture

**Looking Through Great Telescopes**

**The glories of the star depths in six reels of unsurpassed wonder and beauty. The greatest of educational films. For class room or auditorium.**

Reels: 1, Seeing the Sun; 2, Going to the Moon; 3, From Mercury to Mars (including Asteroids and Comets); 4, Jupiter, Saturn and Beyond; 5. The Pathway of the Gods, The Milky Way; 6, The Depths of Space, The Spiral Nebulae.

**The motion picture that should be shown and used in every school.**

**16mm and 35mm, silent or sound, standard or safety film.**

Descriptive circular on request.

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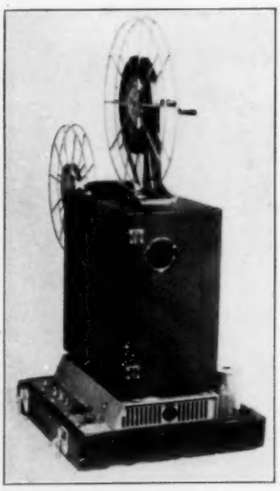
CHICAGO, ILLINOIS

Synccofilm Sixteen *Sound Projector*



Let us tell you more about SYNCROFILM SIXTEEN.

Simplicity, ruggedness and precision featured by the new SYNCRO-FILM SIXTEEN PROJECTOR.

The latest in 16mm. sound projection.

750 watt Projection Lamp.

Efficient Air Ventilating System capable of accommodating 1000 watt projection lamp.

1600 foot Reels.

2" Wide Aperture Projection Lens.

**Weber Machine Corp.**

Manufacturers of 35 mm. and 16 mm. Sound Projectors
59 RUTTER STREET — ROCHESTER, NEW YORK
Export Office: 15 Laight St., N. Y. C. — Cable: ROMOS, N. Y.

and picture, or; (a), (b), or (c) plus maker's name

D. Arrangement of Illustrative Materials
   1. A page should contain only a few, well selected pictures or objects
   2. Use simple descriptive titles only. Place titles under picture or materials, or at bottom of the page
   3. Illustrative materials should be placed in logical sequence
   4. Materials should be mounted parallel with the sides of the page upon which they are mounted. (Never diagonally)

E. Types of Illustrative Materials Suitable for Booklets
   1. Pictorial materials. (Photographs, prints, ads, pictures, diagrams, graphs, cartoons, maps, blue prints, photostats, cut-outs)
   2. Specimens (Must be thin and flat)
   3. Newspaper and magazine clippings

F. Sources of Illustrative Materials

   Daily newspapers, rotogravure sections of Sunday papers, trade magazines, popular monthly magazines, picture dealers, steamship companies, railroad companies, chambers of commerce, industrial institutions, travel bureaus, catalogues, photographs, textile samples.

In conclusion, these two examples were deliberately selected to indicate the changed viewpoint concerning visual-sensory aids for school use. Many teachers and so-called visual education workers feel that they cannot carry on a visual education program without the projection equipment. The poster or the booklet can be employed in any classroom, with any age-grade of pupils, at little or no cost; whereas, projection materials necessitate the outlay of considerable money, special room equipment, and trained projectionists.

## Two Film Reviews

**Official Boulder Dam Films** — Distributed by Boulder Dam Service Bureau, Boulder City, Nevada. Authorities behind the Boulder Dam Project have very wisely spared neither effort nor expense to ensure a complete visual record of one of the greatest engineering works of our day. The monumental feat has been filmed from start to finish in all its multiplicity of detail and skillful editing has produced an assortment of film subjects expressly adapted to the needs of various groups which will see and study the thrilling record for years to come.

For Societies of engineers and advanced students in engineering, is available Print I, the complete 6000 foot 35 mm. film (or 2400 feet in 16 mm.). Print II is a 1250 foot subject (500 feet in 16 mm.) planned for use in Schools and Junior Colleges, omitting extremely technical details but still telling a complete

(*Continued on page 278*)

*A special group of seven*

# EASTMAN CLASSROOM FILMS

***... prepared particularly for the primary grades***

## $102.00 COMPLETE

By titles, these films are: *Bears*—100 feet; *Animals of the Cat Tribe*—200 feet; *Three Jungle Giants*—100 feet; *Monkeys and Apes*—200 feet; *Adventures of Peter*—300 feet; *Some Friendly Birds*—400 feet; *The Farm*—400 feet. The price of this complete list, including reels and humidor cans, is $102.

THIS special group of films meets recommendations made in recent curricular studies. It provides sufficient basic material for a year's work in the first three grades of a school. Its total cost...just over one hundred dollars...is a good indication of the comparatively small outlay now necessary in order to give pupils the benefit of Eastman Classroom Films.

Schools already using some Eastman Classroom Films should have this special primary-grade material. By means of it, schools that as yet own no Eastman Classroom Films can readily "get a start." The seven films provide an excellent foundation for the extension of this modern teaching aid to the entire school or school system. Write today for further information and literature. Eastman Kodak Company, Teaching Films Division, Rochester, N. Y.

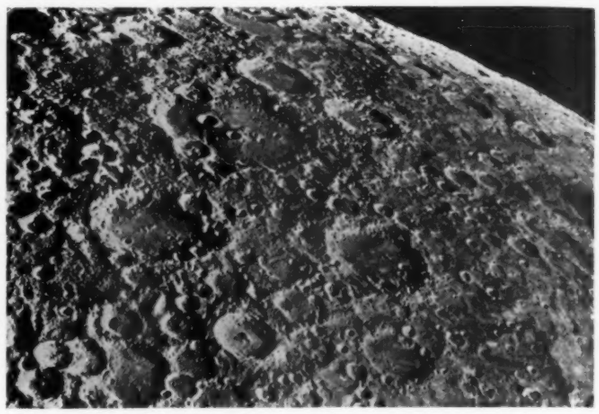
**EASTMAN *Classroom Films***

story. Print III is a still further condensed version of 200 feet in 16 mm. Three other 100 foot 16 mm. prints are devoted to selected details of high scaling, blasting, concrete pouring, making and placing of gigantic pipe, and shots of the virgin river, the spillways, the intake towers, etc. Finally, three additional 100 foot reels are still to be made which will show further operations to final completion of the monster dam. Full explanatory material is ready in the elaborately illustrated official booklet, "The Construction of Boulder Dam," with scores of the illustrations available also in slides for school use.

Boulder Dam Service Bureau, in close co-operation with the U. S. Government Bureaus, has made an outstanding contribution to visual aids for the educational field. The absorbing story of this conquest of nature, unrolled before our eyes the other day, will continue to thrill, inform, and inspire countless students in the future, in schools, high schools, colleges, and technical schools for graduate engineering. It is a master record of a master achievement.

**Looking Through Great Telescopes** (6 reels) 35 mm. or 16 mm., silent or sound. Produced and distributed by Araneff Film Associates, Chicago.

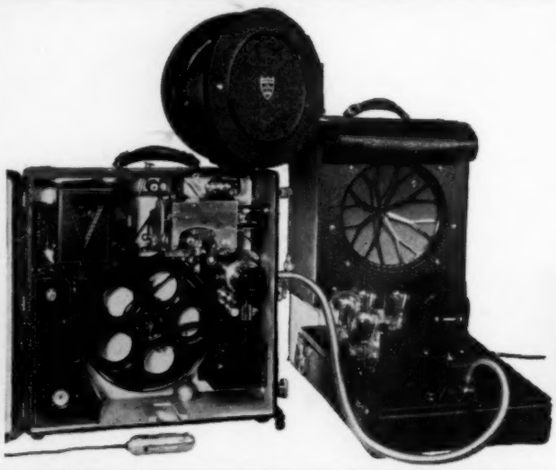
This is the most impressive production in the field of astronomical motion pictures that has yet appeared. It is a six reel picture, years in the making, which combines the marvelous photographic power of the world's greatest telescopes—the Mount Wilson 100-inch reflector, the great Yerkes refractor, and others—with the wizardy of the modern motion picture camera to give the actuality of motion to the spectacle of the heavens



**Tycho and The Great Walled Plains of the Moon.**

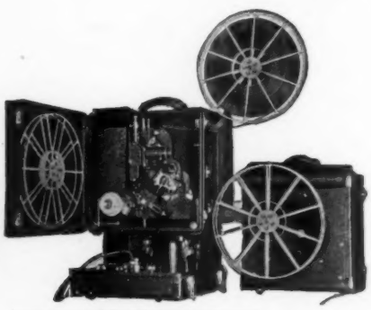
and the dazzling mysteries of space. Ruroy Sibley, veteran scientist and educator, directed his able staff and enjoyed the tireless cooperation of various educators and observatories throughout the country, to produce the work.

The six reels form a complete whole, offering a full presentation of modern astronomical knowledge from the nearest heavenly object, our own little moon,

**The DeVry Line Is Complete**

***Models for any size auditorium or classroom***



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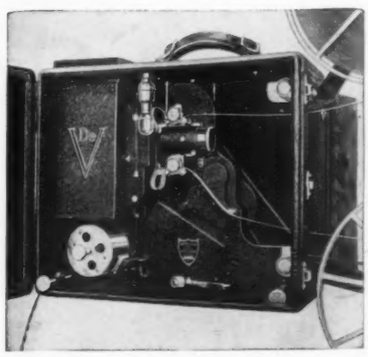
SILENT CAMERAS AND PROJECTORS

The DeVry 35mm Sound-on-Film Unit—suitable for large auditoriums and classrooms. Enables schools to use theatrical releases.

DeVry 16mm Sound-on-Film Unit—for auditorium and classroom use.



DeVry 16mm Silent Projector

Many schools make this equipment pay for itself and raise other school funds. One report just in, states over $200 raised with the first show. Smaller schools can also secure DeVry Equipment in this manner. Write for details.

**Herman A. DeVry, Inc. Dept. G**

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to the remotest stars yet seen by the telescopic eye. And yet each reel is a perfect unit, usable by itself at the appropriate point in the school year or astronomy course. At the end of year or course, a re-showing of the six reels together affords a stimulating review of the whole study. The six unit reels have the following titles and contents.

Seeing the Sun (Reel 1) Airplane views of Mount Wilson and its great observatory open the reel. Then the Sun at total eclipse with the magnificent Corona, the gaseous envelope, the chromosphere. The prominences are shown in amazing detail, their vastness, their swiftness of motion, their relation the sun spots, which, in turn, show clearly the Sun's rotation.

Going to the Moon (Reel 2) From the interior views of the Mount Wilson Observatory we glance up at the Moon with naked eye and, by skillful illusion of the camera, we travel toward it. Its size grows. Surface details appear. Then an excursion back and forth over the whole side of the moon visible to us, viewing its monstrous craters, mountain ranges, walled plains, its dead "seas," and numerous spots bearing names of famous features upon the earth.

From Mercury to Mars (Reel 3) The inner planetary group, with asteroids and comets, are covered in this reel. The nature of Venus, the rotation of Mars, his surface markings and change of seasons; the course of a comet, the method of discovering an asteroid.

Jupiter, Saturn and Beyond (Reel 4) From the Lowell Observatory in Arizona we study Jupiter, his changing belts and moons; the rings of Saturn, their shifting appearance as his revolution around the Sun changes our angle of view, and his Great White Spot of 1933. Uranus and his satellites, Neptune and his single moon, and finally Pluto and how he was discovered—bringing us to the outer fringe of our little solar system.

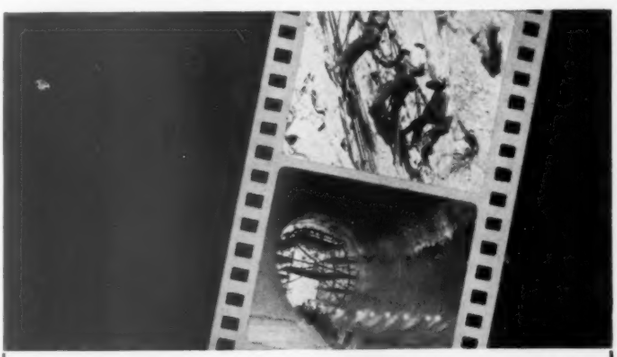
The Pathway of the Gods (Reel 5) From Yerkes Observatory in Wisconsin we see the Milky Way. Galaxies, star clouds, clusters, nebulae of both spiral and ring formations, double stars, new stars, their birth and growth within a few short years.

The Depths of Space (Reel 6) And now out to the other stellar systems, with a new yard stick of hundreds of thousands of light years, among such marvels as The Great Nebula of Andromeda, the beautiful spiral of Triangulum, the Coma Virgo region, and still further out to clusters of island universes where we must talk of fifty million light years and more.

The six silent reels contain a vast amount of material for the eye; material for the ear that may accompany the rich spectacle is simply unlimited. Teacher or lecturer alike will be faced by one problem only, "what to omit"—never "what to say." (Accompanying manuals for teacher and lecturer supply a wealth of material and explanation).

TWO NEW SCIENCE AIDS
**PRINCIPLES OF CHEMISTRY**
and
**PRINCIPLES OF PHYSICS**
THE CORE OF THE YEAR'S WORK ON FILMSLIDE
Descriptive Literature and Sample Strip of Typical Frames Sent on Request. Address:
VISUAL SCIENCES — Suffern, New York

**15% CASH DISCOUNT**
**Motion Picture Equipment**
**Between December 15th - January 31st is your school's chance to save money.**
VICTOR — Projectors • Cameras — RCA
Weston Exposure Meters — Distinctive Titles
*ACT TODAY*
**J. C. HAILE & SONS**
Motion Picture Dept.
215 WALNUT ST. CINCINNATI, OHIO

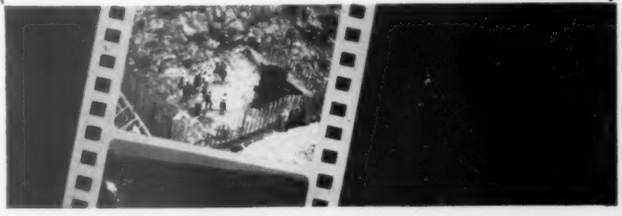


*An Invaluable Study of the Development of*
**BOULDER DAM**
**A Film of Permanent Educational and Entertainment Value**

These motion pictures represent the U. S. Government's authentic progress record of the Boulder Dam project. Directed by government engineers, and engineers of the Six Companies Inc., they take you on a visual pleasure tour through the successive steps in the building of the dam, explaining its purpose and its history, immortalizing photographically the greatest engineering achievement the world has ever known. A Free folder, giving full details about the films, will be sent upon request. Slides of dramatic details of the construction are also available.

Send 25c, plus 3c for postage, for the official booklet, "Construction of Boulder Dam", 48 pages, 85 illustrations, authorized by the Bureau of Reclamation, Department of the Interior.

**BOULDER DAM SERVICE BUREAU**
*Boulder City, Nevada*



# AMONG THE PRODUCERS

***Where the commercial firms — whose activities have an important bearing on progress in the visual field — are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.***

## The New Keystone Junior Stereoscopic Material

A very significant development in the use of visual aids in teaching is the release of the new junior stereoscopic material by the Keystone View Company. These so-called junior, or small, third-dimension views are true photographic reproductions and portray facts of the world with the same amazing reality that one gets from looking at regular stereographs. Since the price of the prints is less than one-third the price of the standard stereographs, it is now possible for every school, however small or limited in means, to provide itself with these very effective aids in teaching.

Many units are available on geographical subjects, each unit consisting of twenty-five stereographs and a Teacher's Manual. Other miscellaneous units are: *Indians, Primitive Homes, Children of Many Lands, World's Fair, Mass and Benediction,* and *The Story of the Iron Horse,* the first of a group of units on the history of railway transportation.

*We Wish A--*

Merry Christmas
and
Happy New Year

to the entire membership of the VISUAL INSTRUCTION DEPARTMENT of the National Education Association

*And The Hundreds Of - - -*

Teachers, principals, and Superintendents, etc., who have purchased HIGH CLASS motion picture PROJECTORS, Cameras, Screens, etc., from us during the year Nineteen Thirty-Four.

We sincerely appreciate your patronage.

Write to us about the BRAND NEW 400 or 500 Watt 16 mm., VICTOR projector in sound proof blimp case . . . absolutely noiseless. Original list price — $300.00 — our special price to schools while they last . . . $115.00 — cash or terms. $25.00 down payment and $10.00 each month for nine months . . . no interest charge. Write us immediately!

**Sunny Schick**

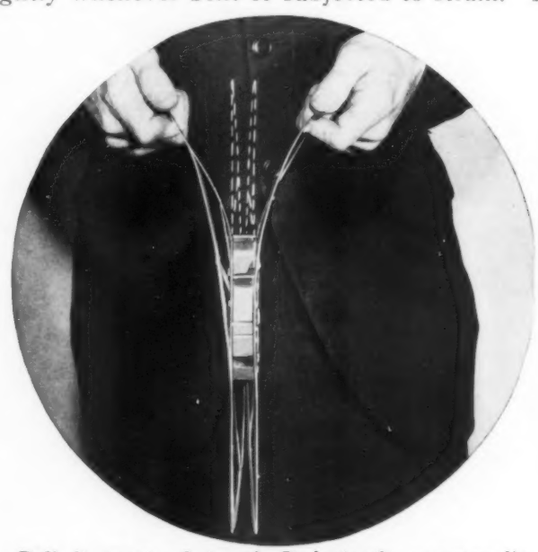
*National Brokers Cinemachinery & Photographic Equipment*

407 W. WASHINGTON FORT WAYNE, INDIANA

## DeVry New 16 mm. 1600 Foot Reel

Considering the constant and universal use to which the metal reel is put—and its absolute necessity in all motion picture work, it is surprising the little amount of thought and study that has been given to its design and manufacture. Every film user knows how often shows have been stopped and film ruined by faulty reels. Reels that buckled in, stopping and tearing the film; reels that spread out and allowed the film to wabble; and that scraped against other parts of the machine—reels, part metal and part wood, with screw fastenings dropping out or loosening; wire reels twisted and contorted that made the rounds of the industry, like bad money, that each disgusted user passed on to the next as quickly as possible.

The new DeVry reel is made entirely of high tempered band spring steel. No wires—no stamped out parts—no wood—no screws—just band steel, —spokes, rim and hub. The spokes are riveted to the rims, but attached to the hub through double steel slots that permit the spokes to lengthen slightly whenever bent or subjected to strain. The

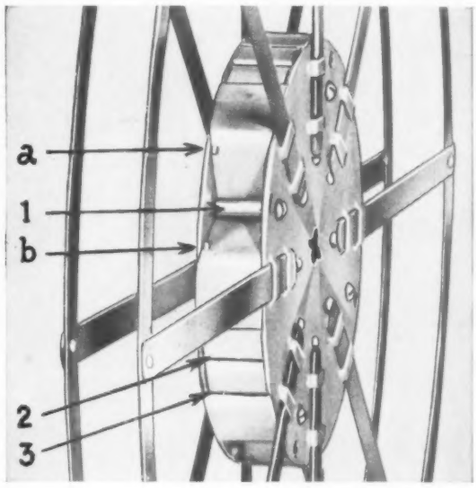


**Pull it apart. Let go!—It instantly resumes its original form. Note the straight true lines of the lower part of the rim, while the upper part is being bent violently out of shape.**

expansion space provides room for the molecular expansion which *always* take place when a piece of metal is bent—but without the usual displacement of the molecules, resulting in the permanent bends, dents and twists of ordinary reels.

Moreover the threading (clipping) of the film is completely automatic—can be done in the dark as

easily as in the light. The film is merely laid on top of the hub and pressed down slightly in well (1). That's all—the perforations of the film catch




automatically on two prongs (a and b) and stay put. A second method provides a spring clip (3) for holding film, and still a third permits the old way of threading film in a center slot as at (2). Such a reel saves precious film from injury, and its own life seems almost indestructible. It is a reel *de luxe*, and a welcome contribution to the amateur's kit of tools.

## Bausch & Lomb Equipment

An addition to the equipment of the amateur microscopist has recently appeared in the form of an inexpensive photomicrographic outfit for photographing specimens in the field of the microscope. This does not imply that professional work cannot be done with this compact little outfit. It can be used with any good amateur or professional microscope and the procedure is very simple. The microscope is placed on the base of the stand and held securely by a forked metal clamp. The camera is adjustable up or down on a vertical rod and can be swung to the left or right. It uses standard 127 roll or cut film 2¼" x 3". For either time exposures or snapshots, this outfit gives excellent results with the proper illumination. A good source of the latter is a 100-watt frosted bulb in an ordinary gooseneck desk lamp.

Attached to the side of the camera is a focusing tube with which the object may be seen on a focusing disc. When the exact focus is secured the camera is swung over the microscope ready for the exposure. A light-tight connector fits over the eyepiece of the microscope and into the shutter opening of the camera to keep stray light from reaching the film. Exposure is just as important in photomicrography as in regular photography and while the only true guide is experience, a table has been compiled on exposure time which is very helpful to the amateur. This is included, with the instrument, in a manual for the beginner in photomicrography.

**For Making Home-Made Slides**
GLASSIVE — an abrasive for making your own ground glass slides from plain cover glass for a fraction of a cent each. 50c a package.
CELLOSLIDE—Eliminates the necessity of writing on glass. Takes ink better than glass. 25c a package.
(Dealers Wanted — Write for terms)
TEACHING AIDS SERVICE, WABAN, MASS.

**9'x9' SCREENS - $14.50**
Regular $60 Value—Metal Roller for Screen, $4.50 extra
Made of perforated mat white material. For sound or silent projection. Equipped complete with pole ready for hanging—cheap enough to cut up for class room work. *Limited Number Available.*
ALFRED D. HORNSTEIN
29 E. MADISON ST., CHICAGO, ILL.
We handle a complete line of Da-Lite Screens.

SCARBORITE TRADE MARK TRANSPARENT COLORS
GORGEOUS STAINED GLASS EFFECTS
For Christmas Plays and Pageants
Designs are easily painted with SCARBORITE on lantern slide glass and projected to any desired size on the stage. We are prepared to rush deliveries to reach you in time for Christmas. Send 10c in stamps for lantern slide of color samples.
SCARBORITE COLORS, Scarborough-on-Hudson, NEW YORK

**SOUND ON FILM 16 MM**
Outstanding entertainment subjects of unusual merit—ideal for school or church showings, available at nominal rentals.
Write for complete list of Selected Subjects in Sound
Also a complete catalogue of silent pictures.
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RADIO-MAT SLIDE CO. NEW YORK
Talk from your screen with quickly TYPEWRITTEN MESSAGES
50 Radio-Mats $1.50
White, Amber, Green
Accept no substitute
IS THE STATIONERY OF THE SCREEN
**The Typewriter Slide For Screen Projection**
FOR SALE BY YOUR THEATRE EQUIPMENT DEALER
Write for free samples.
RADIO-MAT SLIDE CO., Inc.
1819 Broadway New York, N. Y.

**100 FILM CATALOGUES IN 1**
**A New Service**

Select from 2500 educational films
We serve entire U.S.
We ship from your nearest possible distributor at his regular rates.
Send 30c stamps for most comprehensive illustrated handbook,
INTERNATIONAL EDUCATIONAL PICTURES, INC.
40 Mt. Vernon St., Boston 8 W. 40th St., N.Y.C.

# HERE THEY ARE!

## A Trade Directory for the Visual Field

### *FILMS*

**Araneff Film Associates** (3, 6)
1345 Argyle St., Essanay Studios, Chicago
(See advertisement on page 276)

**Boulder Dam Service Bureau** (1 ,4)
Boulder City, Nevada
(See advertisement on page 279)

**Bray Pictures Corporation** (3, 6)
729 Seventh Ave., New York City

**Eastin Feature Films** (4)
(Rental Library) Galesburg, Ill.

**Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)

**Eastman Teaching Films, Inc.** (1, 4)
Rochester, N. Y.
(See advertisement on page 277)

**Edited Pictures System, Inc.** (1, 4)
330 W. 42nd St., New York City

**Erpi Picture Consultants, Inc.** (2, 6)
250 W. 57th St., New York City
(See advertisement on page 257)

**Guy D. Haselton's TRAVELETTES**
7901 Santa Monica Blvd., Hollywood, Cal. (1, 4)

**Home Film Libraries, Inc.** (6)
500 Fifth Ave., New York City
(See advertisement on page 281)

**Ideal Pictures Corp.** (1, 4)
30 E. Eighth St., Chicago, Ill.

**International Educational Pictures, Inc.**
College House Offices, (3, 6)
Cambridge, Mass.
(See advertisement on page 281)

**Modern Woodman of America** (3, 4)
Rock Island, Ill.

**Pinkney Film Service Co.** (1, 4)
1028 Forbes St., Pittsburgh, Pa.

**Ray-Bell Films, Inc.** (3, 6)
817 University Ave., St. Paul, Minn.

**The 16 mm. Sound Film Co.** (5)
11 W. 42nd St., New York City

**United Projector and Films Corp.** (1, 4)
228 Franklin St., Buffalo, N. Y.

**Universal Pictures Corp.** (3)
Rockefeller Center, New York City
(See advertisement on page 275)

**Wholesome Films Service, Inc.** (3, 4)
48 Melrose St., Boston, Mass.

**Williams, Brown and Earle, Inc.** (3, 6)
918 Chestnut St., Philadelphia, Pa.

**Y. M. C. A. Motion Picture Bureau** (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.

### *MOTION PICTURE MACHINES and SUPPLIES*

**Bell & Howell Co.** (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)

**Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)

**Edited Pictures System, Inc.** (1)
330 W. 42nd St., New York City

**Erpi Picture Consultants, Inc.** (2, 6)
(Western Electric Sound System)
250 W. 57th St., New York City
(See advertisement on page 257)

**J. C. Haile & Sons** (6)
215 Walnut St., Cincinnati, O.
(See advertisement on page 279)

**Herman A. DeVry, Inc.** (3, 6)
1111 Center St., Chicago
(See advertisement on page 278)

**Holmes Projector Co.** (3)
1813 Orchard St., Chicago
(See advertisement on page 274)

**Ideal Pictures Corp.** (1, 4)
30 E. Eighth St., Chicago, Ill.

**International Projector Corp.** (3, 6)
90 Gold St., New York City
(See advertisement on inside front cover)

**Motion Picture Accessories Co.** (3, 6)
43-47 W. 24th St., New York City.

**RCA Victor Co., Inc.** (5)
Camden, N. J.
(See advertisement on page 273)

**Regina Photo Supply Ltd.** (3, 6)
1924 Rose St., Regina, Sask.

**S. O. S. Corporation** (2)
1600 Broadway, New York City

**Sunny Schick** (3, 6)
Fort Wayne, Ind.
(See advertisement on page 280)

**United Projector and Film Corp.** (3, 4)
228 Franklin St., Buffalo, N. Y.

**Victor Animatograph Corp.** (6)
Davenport, Iowa
(See advertisement on page 258)

**Weber Machine Corp.** (2)
59 Rutter St., Rochester, N. Y.
(See advertisement on page 276)

**Williams, Brown and Earle, Inc.** (3, 6)
918 Chestnut St., Philadelphia, Pa.

### *SCREENS*

**Da-Lite Screen Co.**
2721 N. Crawford Ave., Chicago
(See advertisement on page 275)

**Alfred D. Hornstein**
29 E. Madison St., Chicago, Ill.
(See advertisement on page 281)

**Motion Picture Accessories Co.**
43-47 W. 24th St., New York City.

**Williams, Brown and Earle, Inc.**
918 Chestnut St., Philadelphia, Pa.

### *SLIDES and FILM SLIDES*

**Conrad Slide and Projection Co.**
510 Twenty-second Ave., East
Superior, Wis.

**Eastman Educational Slides**
Iowa City, Iowa

**Edited Pictures System, Inc.**
330 W. 42nd St., New York City

**Ideal Pictures Corp.**
30 E. Eighth St., Chicago, Ill.

**Keystone View Co.**
Meadville, Pa.

**Radio-Mat Slide Co., Inc.,**
1819 Broadway, New York City
(See advertisement on page 281)

**Scarborite Colors**
Scarborough-on-Hudson, N. Y.
(See advertisement on page 281)

**Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.

**Teaching Aids Service**
Waban, Mass.
(See advertisement on page 281)

**Victor Animatograph Corp.**
Davenport, Iowa
(See advertisement on page 258)

**Visual Sciences**
Suffern, N. Y.
(See advertisement on page 279)

**Williams, Brown and Earle, Inc.**
918 Chestnut St., Philadelphia, Pa.

### *STEREOGRAPHS and STEREOSCOPES*

**Herman A. DeVry, Inc.**
1111 Center St., Chicago
(See advertisement on page 278)

**Keystone View Co.**
Meadville, Pa.

### *STEREOPTICONS and OPAQUE PROJECTORS*

**Bausch and Lomb Optical Co.**
Rochester, N. Y.

**E. Leitz, Inc.**
60 E. 10th St., New York City

**Regina Photo Supply Ltd.**
1924 Rose St., Regina, Sask.

**Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.

**Williams, Brown and Earle, Inc.**
918 Chestnut St., Philadelphia, Pa.

### *16 MM. TITLES*

**J. C. Haile & Sons**
215 Walnut St., Cincinnati, O.
(See advertisement on page 279)

**REFERENCE NUMBERS**

(1) indicates firm supplies 35 mm. silent.
(2) indicates firm supplies 35 mm. sound.
(3) indicates firm supplies 35 mm. sound and silent.
(4) indicates firm supplies 16 mm. silent.
(5) indicates firm supplies 16 mm. sound-on-film.
(6) indicates firm supplies 16 mm. sound and silent.

**Continuous insertions under one heading, $1.50 per issue; additional listings under other headings, 50c each.**

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Buy Christmas Seals

**The little cottage on this year's Seals represents the first sanatorium in the United States in which the modern treatment of tuberculosis was begun. Built by Dr. Edward Trudeau, February, 1885, at Saranac Lake, New York, it became the nucleus of a famous institution and marked the beginning of the sanatorium movement in this country.**

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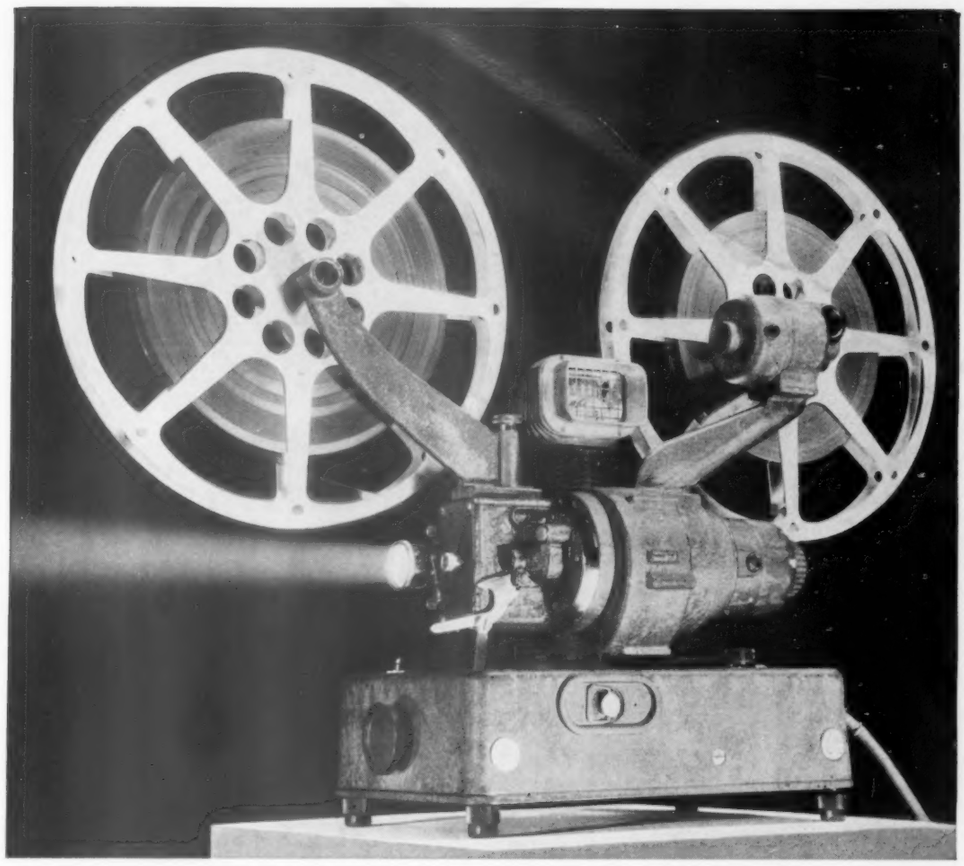

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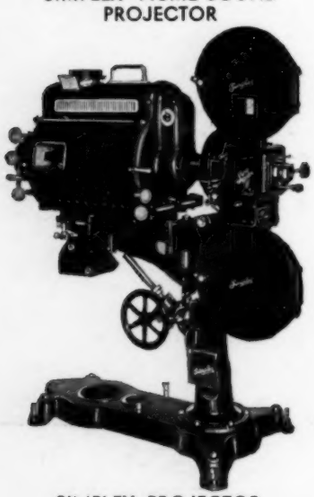

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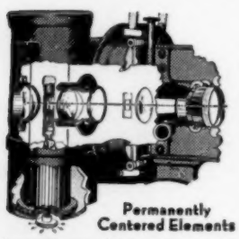

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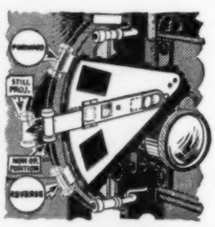


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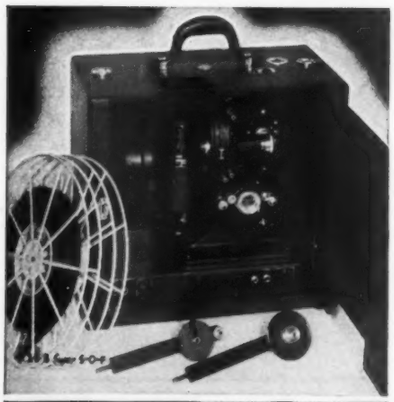

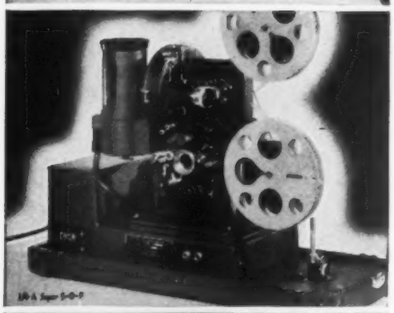

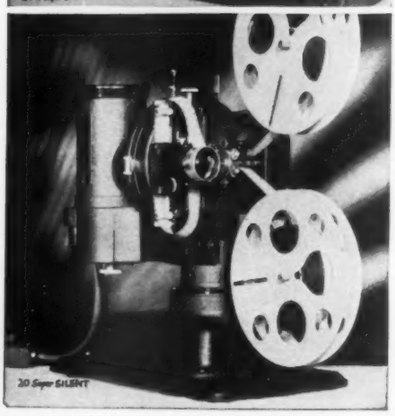

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JANUARY, 1935

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# Editorial

WITH this issue THE EDUCATIONAL SCREEN begins Volume XIV. For a magazine in the visual field to survive thirteen birthdays is necessarily some sort of a record, the longest life-span of any of our six predecessors having been but a half dozen years. It is a further satisfaction that, although the thirteen years have included the five-year depression period when magazine mortality ran high, THE EDUCATIONAL SCREEN lives on in better health than ever under the same name, same management, and the same faith. The changing times are unmistakable promise of still better things in 1935. We confidently expect to make Volume XIV the best to date.

IN THE spring of 1934 much stirring publicity was achieved through press and platform regarding the plans of the National Council of Teachers of English and others to insert in High School curricula new courses to teach "appreciation of motion-pictures" to the rising generation. Manuals were to be prepared by qualified educators on masterpieces of the screen. It was more than hinted that this material in systematic use in classrooms was the solution of the movie problem. One had only to teach young people why a good motion picture is good—by seeing it and studying the manual thereon—and why a bad motion picture is bad—presumably by seeing it and discussing it in class without a manual. This accomplished, said young people would thereafter attend only good pictures and scrupulously boycott the bad. Unfortunately, from the Garden of Eden down, knowledge of good and evil has proved far from a panacea for unwise human conduct. High intelligence and full maturity still frequently prefer coffee to milk, night-clubs to church socials, bedroom-farce to Shakespeare, sensation to serious thought. With healthy, normal youth the preference is frequently stronger still.

We emphatically approved, of course, whatever would develop keener, deeper appreciation and enjoyment of good pictures, much as youth appreciates them already. We deplored, however, any program that would increase the exposure of youth to the trash of the screen. Assorted reactions greeted our remarks. Many glowed in agreement. Some were simply scathing. One district chairman, heading a committee making manuals under the National Council, informed us forcibly that "appreciation could be taught", that many teachers "knew motion pictures" and were qualified to write and use such manuals, and finally that THE EDUCATIONAL SCREEN had "betrayed the good cause." We agreed earnestly with the first two declarations and could only regret and deny the third. But the mystery remained, and still remains, as to how a qualified committee could possibly have selected that grotesque screen absurdity, "Alice in Wonderland", as the subject for its skillfully done manual. How could they have failed to recognize that lumbering, plaster-of-paris monstrosity as an unconscious outrage upon Lewis Carroll's delicate work of art? How could they bring themselves to offer to youngsters such a devastating antidote to the delightful ensemble of dream whimsy and subtle charm already existing in their young imaginations, built by themselves from the magic of Carroll's pages? On the other hand there can be nothing but praise for such classroom material as the study guides on "Little Women" (by Abbott), "Treasure Island" (by Lewin), "Great Expectations" (by Barnes), "The Little Minister" (by Bauer), published by or for The National Council of Teachers of English. Such work should continue for all screen masterpieces from classics or near-classics—happily appearing in greater numbers than ever before.

There is one disturbing possibility. The industry of course approves the work of The National Council because it increases attendance on such films, a most desirable result for all concerned, to be sure. But what prevents the industry from promoting attendance on any film by preparing its own "manual"? In November last, the Motion Picture Producers and Distributors of America announced that they had produced their own "Teacher's Manual" and "Student's Study Guide" for "Anne of Green Gables"—which seemingly ought to have been done by the Council. And a film of very dubious classroom suitability, DeMille's "Cleopatra," has been manualized and an elaborate campaign is on. If the schools accept it as readily as the publications of the National Council, the gate is wide open. Do American schools want their classroom materials prepared by the movie industry?

## ALFRED W. ABRAMS

IT WOULD be difficult to name a more commanding figure in visual instruction than A. W. Abrams, whose life-work has contributed so richly to educational progress. He knew pictures, their power, their use, and above all knew how to move, win and train others—teachers, schools, school-systems—to use with increasing joy and maximum efficiency that great visual aid, the lantern slide. We quote at length from the Bulletin of the University of the State of New York.

A notable service of 44 years in public education in this State terminated on December 1st, 1934, when Alfred W. Abrams retired as Director of the Visual Instruction Division of the Department.

Mr. Abrams was graduated from Cornell University in 1891. Prior to that he had taught one year in a rural school and after graduation he was principal of the Oneonta High School for four years and superintendent of schools at Ilion for seven years. He came to the State Education Department as inspector of schools in 1906, and became Director of the Visual Instruction Division in 1909.

On April 1, 1934, Mr. Abrams completed 25 years of service as the head of the Visual Instruction Division. During these 25 years he has developed the use of screen pictures for regular class instruction in schools throughout the State. When he was appointed head of the Division in 1909 by the late Commissioner Andrew S. Draper the State Education Department was circu-

(*Continued on page* 8)

# Mounted Pictures as an Aid to Teaching

By ADELE M. OUTCALT
Garfield School, San Diego, California

THE "Flat Picture," as it is unfortunately termed in Visual Education nomenclature, may not be as effective as some of the newer and more expensive "aids," but it still holds and may always hold an important place in our teaching procedure. This is, of course, partly due to the abundance and availability of pictures of all kinds; magazines, illustrations, photographs, post cards, prints of all kinds are easily gotten and are not difficult to prepare for use in the classroom. Pictures not only supplement reading material, but occupy a distinct place of their own. They provide the raw material for imagery. What erroneous ideas are at times received from reading when our imagination has nothing with which to construct a mental image! The picture not only provides the raw material but corrects wrong impressions and classified concepts. It is well if the correct impression can be given before wrong mental images have been formed.

### Sources of Pictures

In our larger cities which have adequate Visual Education Centers, teachers are fortunate in being able to draw upon them for necessary pictures as aids to teaching; however, even our well equipped centers cannot supply all the demands, so it is advisable that schools and teachers themselves have their own supply of pictures to draw upon. In smaller towns and rural sections where no Visual Aid Center is at hand, the collecting and caring for pictures becomes a necessity.

The choice is of greatest importance. At first the collectors will take anything available, but soon they discard those pictures which do not come up to a given standard. The following criteria may be set up in choosing pictures:

1. Will the picture illustrate some specific phase of school work?
2. Is the picture an adequate representation or expression of what it is intended to convey?
3. Is the quality of the picture such that it is worth preserving (in respect to paper, printing, photography, etc.)?
4. Is it suited to the age and grade of the children for whom it is selected?

The world is at present full of pictures. Good picture material can be had at low cost or at practically no cost. Magazines can be secured from many homes; children can be encouraged to bring them. The following offer the best materials: National Geographic, Asia, Travel Magazine, Japan, Nature Study Magazine, Rotogravure Section of New York Sunday Times, etc. Old book stores sell old numbers of magazines at low cost. Old books frequently have valuable illustrations that can be cut out; picture postals are sometimes of excellent quality; photographs and souvenirs of travel offer materials for a collection. The smaller pictures are most valuable if a Balopticon is available. Literature from railroad and steamship companies and Chambers of Commerce often contains fine pictures for geography works; the large posters issued by these travel companies are frequently very beautiful and true in their conception and interpretation of a landscape or architectural representation. If money is available, excellent prints, especially for art appreciation, can be obtained from the following sources:

*Brown-Robertson,* Chicago, New York. Museum Prints (8 x10), Seeman Prints (7x9), Color Miniatures (3½x4½), Historic Design (4x6).

*Art Extension Press,* Westport, Conn. Artext Prints (8x10), Artext Juniors (2½x3½), Artextia Print (16x20).

*Museum of Fine Arts,* Boston, Mass.

*The University Prints,* Newton, Mass. Color Prints (5½x8).

*The Perry Pictures Co.,* Malden, Mass. History (Black & White), Art.

*Andolian Society.* Medici Prints.

*P. P. Capronia Brothers, Inc.,* Boston, Mass. Casts.

*Victoria and Albert Museum,* London, England. Pictures and Picture Books.

*Vera Jones Bright,* San Francisco, Calif. Large color prints of Old or Modern Masters.

*The Metropolitan Museum of Art,* New York. Color Prints, Black and White Photographs.

*Photographic History Service,* Hollywood, Calif. Series of pictures for teaching history and related social subjects. Twelve units, each comprised of fifteen 8"x10" photographs, or slides, reproduced from "stills" of historical motion pictures.

### Mounting and Filing

The next step in the securing of a Picture Library is to care for the pictures properly. Unless they are adequately mounted, classified and filed, they are likely to have only an ephemeral existence; moreover a proper mount enhances the value of the picture and placement in a well arranged file makes it available when needed.

A uniform size of mount is advisable; however, the size of the mount will be determined by the nature of the file. If pictures are to be placed in folios on shelves, the mounts can be adjusted to the size of the shelves, or vice-versa—shelves can be built to accommodate the size of the folios. Letter files can be substituted for the folios and numbered consecutively. The ideal method for filing pictures is vertical filing in a case of drawers of

wood or metal; a file with ball bearing or roller transmission will insure greater ease in pulling out the drawers. These files usually contain four drawers and will carry from five thousand to ten thousand pictures according to the thickness of the mount; the movable compressor contained in each drawer helps to hold the pictures in an upright position. Small collections of pictures can be filed in an inexpensive small vertical filing case which contains no compressor. It will hold a limited number of pictures, but several of these cases can be arranged on shelves by subjects, making reference easy.

Having decided on the size, either letter size or the legal or cap file size, (i. e. 10 inches by 15 inches) one can proceed with the mounting. The mounts should be of heavy, tough paper of neutral shade; thick cardboard is more durable but fills the file too rapidly.

If a dry mounting press can be secured, much time and effort can be saved. This instrument is an electrically heated press in which the pictures and the mount are inserted with a sheet of gum tissue between. Under the combined pressure and heat the tissue melts and acts as an adhesive. The more common method of mounting is the paste mounting. Measure the position desired for the picture before mounting; allow a space along the long side of the mount for the title and accession number of the picture. The paste is thinned and applied to the mount with a brush. A rolling pin is used for pressure on the mount side as the paste is less likely to smear. A more satisfactory and lasting piece of work is accomplished by first covering cardboard mount with paper of appropriate shade before mounting the picture. A passepartout of linen tape about ¾ of an inch wide makes a secure finish for the picture.

### Filing

In order to facilitate finding a picture, a system of index guides is indispensable. The guide cards separate the contents of the file according to subjects. For the legal size filing case the guide cards should be 10" x 15" exclusive of the half inch in which the subject headings are designated. The guides should be third cut; i. e. the tabs should be equal to a third of the length of the guide so that there are left tabs, center tabs, and right tabs. The names of the subject headings are then put on the tabs in alphabetical order, using the three positions in rotation. For a school the subjects could well follow the curriculum divisions rather than adopt the Dewey Decimal System or the like. For example: Social Studies — Art — Nature — Literature — Music, etc. Under these large divisions could come any number of subject headings. These should be concrete, exclusive and specific. For example, such a subject as Geography of North America would be too general; it would be better to say:

North America—Physiography
North America—Plant Life
North America—Races
North America—Animal Life, etc.

A folder containing a copy of subject headings with their accession numbers kept in the front of the file is convenient for reference.

### Using Pictures in the Classroom

*Social Studies.* We think of the use of pictures particularly in connection with the social studies, geography, history and civics, but we find them valuable also in teaching literature, music, nature study and above all, art. In teaching the social studies the picture is almost coequal in importance with the reading material. Through an attractive pictorial representation the young child first gets his knowledge of places and things not in his immediate environment. Who does not remember the joyful hours spent as a child pouring over a picture book that fired the imagination! The writer recalls particularly a copy of the old "Orbis Pictus" full of purely factual material and yet fascinating because of its variety and its true depiction of places and peoples. Such experiences are second only to the contact with the places or things themselves. The experience becomes more vivid if accompanied by the explanation of an understanding adult, either the parent or the

Honored guests and under-kings were seated on the upper bench or as near to the high-seat as possible. Food consisted of beef, pork, reindeer or horse meat, roasted on spits before the roaring fire, bowls of curds, rye bread, and rounds of cheese. Towels and basins were passed before the food was served. The rooms were lighted by candles or flaming pine torches. Guests were entertained by musicians with harps and by the recitals of the scalds.
THE VIKINGS—PLATE 11

Courtesy of Photographic History Service
**Plate No. 11 Vitalizing "The Vikings"**

teacher. She must be thoroughly familiar with the picture or pictures presented. Opportunity must be given to the children to study the pictures and to derive from them all that is possible. They are then put aside and a discussion brings out all that has been learned from the observation of pictures. The pictures are referred to from time to time if there are differences of opinion. Comparison of descriptive material of some place or objects and the picture

may bring out interesting differences or may strengthen the impression made by either.

A picture may be used in connection with the solution of a problem. For example—the question may be asked—Why are the Swiss engaged in dairying?

Courtesy of Santa Fe Railway

**On Tonto Trail, Grand Canyon National Park**

A study of a picture of the Swiss Valleys may lead to the answer; pictures thus clarify thinking. Pictures may sufficiently stimulate the imagination and arouse the emotions of children to create a desire for expression of some kind. They may wish to produce landscapes like the ones seen in pictures. A historical picture may arouse the desire to dramatize the event depicted. In a classroom some very excellent pictures of the life of Columbus had been studied; a series of tableaux and scenes were arranged for presentation in an assembly program which were derived from the picture study.

*Art.* It is quite inconceivable to teach art or appreciation of art without a supply of good reproductions of great masterpieces in the various branches of Art expression; in architecture, sculpture and the graphic arts. The writer had the opportunity as a child to see frequently a collection of steel engraved copies of the paintings in one of the great European galleries. She feels that this not only familiarized her with many of the world's famous pictures but directed her taste and interest in art for all time. I am glad to say that she was not subjected to any so called "picture study." Marion Louise Israel has discussed the use of pictures for appreciation excellently in the EDUCATIONAL SCREEN, November and December, 1931. She says "hang the picture on the wall and let it accomplish its silent work. Your work is done when you have selected a picture appropriate to a given purpose and to the capacities of the class, and hung it effectively." She calls particular attention to care in hanging the picture. A fine picture is sometimes placed on a bulletin board in the midst of distracting notices, etc. It should be isolated and it should be hung low enough for children to look straight into the picture.

A frame is always an addition to a picture. A single frame having a removable back held in place by turn buttons can be used repeatedly for pictures of the same size and mounting. If the pictures of some artist are studied and it is desirable to bring out certain characteristics doubtless a discussion of these is necessary. A number of reproductions of the same picture in the hands of the children helps in the study of detail.

Colored reproductions of pictures are generally considered preferable. In a study of the colored picture by N. P. MacLean, EDUCATIONAL SCREEN 1930,—results show that the colored picture is more valuable for certain subjects, particular "scenery, decoration, effects, materials and costumes" while in "architectural details—color is of less value."

The observation of a fine picture frequently arouses emotions that lead children to fine expression in thought and feeling. Teachers have been able to catch these expressions and have found them to have poetic value. The study of pictures—particularly those having dramatic value, may lead to reproducing them in tableaux form. In a school where such study has been pursued, the following pictures were used as tableaux for an assembly program: Age of Innocence (Sir Joshua Reynolds), Masefield Children (Sir Joshua Reynolds), Pilgrims Going to Church (Boughton), The Pottery Maker (Couse), Girl Spinning (Millet), The Gleaners (Millet), The Boyhood of Sir Walter Raleigh, Spring Song (Glücklich). Large frames were constructed with lighting arrangement on the inner side. Appropriate back drops were designed and painted by the children. Pictures had to be chosen that did not entail too great an expense for costuming. A child announcer told something of the artist and of the significance of the picture.

*Nature Study.* Here again the picture is of great assistance. A bird may be observed even with an opera glass, but detail of coloring and marking cannot always be determined; the accurate picture (which can be procured from the National Audubon Society, New York) supplies these. The picture acts as a check on observation. A fine representation, photographic or otherwise, of flowers, birds, rocks, butterflies, is invaluable if the original is not available. Such pictures also help to interpret the natural object and lead to greater appreciation.

**For Nature Study on Birds**

### Children's Collections

While the use of pictures in the class is of great value—a still greater service may be rendered to children by encouraging and helping them to collect and mount pictures themselves. Such an individual project may become a life time hobby and what is more important than to lead children to discover hobbies! A boy may begin by collecting ship pictures; another may be interested in architectual representations; another in landscapes. A collection of all kinds of subjects may be made and later classified as to subjects or under countries according to the nationality of the artist. An extensive collection may even have a number of pictures by individual artists. The teacher may encourage the making of booklets with the pictures mounted in them; care must be exercised to see that the pictures are well trimmed and carefully mounted; here is excellent opportunity for training in judgment as to placement and choice of mount, etc.

A contest in making picture collections is an incentive to children; such a contest was carried on in a California County under an able leader in connection with the Fine Arts Gallery. Announcements were sent to the various schools stating the kind of pictures to be chosen (they were all to be by American artists). The size of the mounts and the manner of binding them was designated and the time set when the collections had to be turned in. All collections were exhibited and judges decided on the best and awarded ribbon prizes. Many children took advantage of this contest and developed a genuine love and interest in pictures through the activity.

### Influence of Pictures on the Child

The influence of pictures on children is something that is difficult to test or measure. Doubtless the influence is frequently more far reaching than we think. The following story at least illustrates this point. A retired sea captain who had grown to feel that the occupation of a seaman was undesirable, decided that his three sons should not become sailors. Every effort was made to carry out his decision. In spite of this all three sons took to the sea. A friend asked the sea captain how he accounted for this seeming perversity on the part of his sons. The captain answered by pointing to a picture which hung over the mantel piece in the dining room and which had hung there during the lifetime of the three boys. The picture represented a fine three-masted ship under full sail. The silent appeal of the handsome vessel had been stronger than the wishes of the parents.

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## Alfred W. Abrams

(*Continued from page* 4)

lating slides which were used for the most part for illustrated lectures, chiefly travelogs. Such pictures at that time were a novelty and served a useful purpose for mass instruction and entertainment. The use of them, however, had no direct relationship to the work of the schools. Loans of slides then totaled fewer than 50,000 a year.

Under the direction of Mr. Abrams the Visual Instruction Division has developed the extensive use of screen pictures in the classroom as a basal means of instruction. Mr. Abrams formulated a plan of registering classes in certain subjects and grades which have standard lantern equipment and are taught through a systematic use of the state slides. The number of such classes thus registered has steadily increased year after year. The value of negatives, slides and other equipment of the Division has increased to about a half a million dollars and the loans of slides now total about a million and a quarter a year.

The principles governing Mr. Abrams' administration of the Visual Instruction Division were rooted in his fundamental philosophy of education. He believes that real education consists in the development of habits of observation and interpretation, not merely in the acquisition of items of information. Hence his insistence that the use of visual aids in the classroom should be so conducted as to make the pupil an active participant. He explained this in his annual report for 1933, when he wrote:

The mere showing of pictures has little positive educational value and may engender the habit of observing superficially . . . One of the teacher's important functions is to train pupils to observe and interpret this means of expression. It may be said that a person gets from a picture only what he puts into it through recall of knowledge previously gained, the recognition of new relationships through measurements, comparisons and judgments as to purposes and utilization, in short, through efforts to interpret it.

It was the logical result of this philosophy that Mr. Abrams should discourage the giving of "picture shows"—the rapid showing of a large number of slides with running comments from the teacher—and should continually stress the advantage of using a very few slides in a class period, with thorough analysis and discussion. It was this same reasoning which caused Mr. Abrams to consider the lantern slide unrivaled among visual aids, since the picture can be held on the screen as long as may be desirable for such discussion.

# The Cinema In Surgery

By DR. JACOB SARNOFF
Brooklyn, New York

MAN'S first records were hewn in stone; then came the papyrus and brush; then paper, with pen and ink. In the ages of ancient Greek and Roman Civilization, great deeds were sculptured in marble; later they were portrayed in oil paintings or frescoes. In the early nineteenth century photography was invented, a method of instantaneous reproduction. But that was not enough. We must have sound reproduction. The phonograph was invented. Then the cinema to reproduce action by photography. Lastly we combined the phonographic and photographic records into the modern talking picture. The written words of a textbook and the spoken words of a lecture have to be transmitted from the eye and ear to the brain, where they are translated into mental pictures of reality and stored away as impressions or knowledge. The beauty of a tropical garden, or the horrors of war, require less effort either to portray or conceive when presented or viewed in the form of pictures. Compare these with mere descriptive words!

The cinema first gained popularity as a means of amusement, with its beginning in the comedy of a John Bunny, a Flora Finch, a Charlie Chaplin; then came love and romance; then, historical drama in the "Birth of a Nation" or "The Covered Wagon." Then came short scientific subjects, sea life and animal life; the animated fantastic pictures of Aesop's Fables, Mickey Mouse and a host of others. Millions are spent on such productions, all as a means of entertaining the public.

It gradually dawned upon our educators that the cinema would become a great aid and an efficient medium for general education in schools and colleges, and to this the medical schools were no exceptions. It has taken a hold on all institutions of learning, and is used for the study of any and all subjects that require visualization. In the study of medicine such subjects are anatomy, physiology, pathology, and especially surgery.

In the study of anatomy (the construction of the body) not only can the human machine be studied when it is taken apart, as is done by the medical students in the dissecting room, but the body can also be seen to reassemble by running the cinema film backward, producing in us the same mystification that we get when we see smoke running back into the chimney or water flowing up into the pitcher.

Physiology, the study of the functions of the human body, is a most fascinating subject. To record the various experiments and present the functions not by mere words but in real action is most helpful to the student and teacher. Imagine seeing before your eyes the human heart beat at the rate of 70 to 80 per minute and then by means of slow motion reduce its speed to 7 or 8 per minute. By this slow motion you are able to analyze the separate contractions of the heart's various chambers, the right and left auricles and ventricles, to observe, like the witching waves, the constant contraction of the heart muscle that pumps the blood on its way to all parts of the body and in a fraction of a second later relaxes its muscle walls and allows them to dilate, its chambers to fill with blood from the veins, and keep repeating the cycle of the heart action which goes on incessantly for hours, days, three scores of years or more. Then you can study the heart action in minute detail, as you would study in slow motion the fine plays of a tennis champion, the swing of the bat, the stroke of the golf club, the knock out blow of a Dempsey, Firpo, Tunney or Baer.

The distinction between the normal and the abnormal, the healthy and the sick condition of the tissues and organs of the body (pathology), requires constant observation and long experience to recognize. The study of disease as it applies to the human being in its entirety is a vast field of many variations; to be able to apply the knowledge thus gained to the treatment of the disease is most essential. The stare of the goitre patient, the rash of scarlet fever and measles, the limp of infantile paralysis and a host of other symptoms from the beginning of a disease to its full development can, by means of the cinema, be permanently recorded, like the growth of a flower. By filming its development for short intervals in successive hours or days, one can make a composite picture and you see it grow before your eyes. So, too, the development of tumors or other abnormal changes can be shown, — their progress, regression or improvement — a person's condition can be seen at one time by such a motion picture.

Surgery, the art and science of treating disease by operation, requires not only a thorough knowledge of the many fundamental subjects such as anatomy, physiology and pathology, but also a great deal of experience, good judgment and skill of the highest type. To overhaul a machine, to find out and repair the trouble of even your tele-

phone, requires a knowledge of its parts and their work. How much more important is it to know the human body before one can attempt to diagnose its derangements and particularly to treat by the removal of the cause of the disturbance, such as tumors, or to reconstruct defectively functioning parts, as in hernia, without danger to the patient.

The number and variety of operations mount into hundreds and each operation may have different methods of approach and procedure depending upon the existing factors, the skill of the surgeon and the seriousness of the patient's condition. Mastery of such a vast field is attained by the various aids, the textbooks, the lectures, the clinics and particularly the operating room. It is here that medical students congregate. They are seated in the amphitheater surrounding the center stage, with the surgeon, as the leading star, attended by his understudies, the assistants and the chorus of nurses and orderlies. The plot concerns the patient who may be the victim of a common or a very rare surgical malady. The various scenes or steps of the operation, from the rising of the curtain (the opening incision) to the closing final (the sewing up of the skin), take place on a limited area of a few inches of the patient's anatomy. Through such an opening the surgeon works, reaching the depths of the abdomen to grapple with the malady, whether it be an inflamed appendix, a gall-bladder, tumor, ulcer or kidney stone.

The body of students seated many feet away strain their eyes, crane their necks and contort their bodies to catch a glimpse of such operations, dodging the obstructions of the drapes surrounding the field of operation, as well as the obscuring assistants and nurses and even the surgeon himself; thus they miss some of the most important steps of the operation. Again, they might have to wait for days, weeks or even months for an opportunity to see the operations that they are studying because of the lack of such types of cases, particularly when of a rare nature. A good many of the rare conditions they never have an opportunity to see for that very reason.

The cinema, indeed, is a great aid; by this visual medium every step of the operation may be brought in clear view to the entire class of students, and to every individual as if they were taking part in the actual operation, standing right next to the patient at the operating table. The motion picture camera placed alongside the surgeon, protected by sterile sheets, registers all the moves of the surgeon, the steps of the operation, as well as the important findings, the pathological conditions and the abnormal state for which the operation was performed, as well as the entire progress of the case following the operation until his recovery, giving a complete bird's eye view of this entire study.

Even the surgeon, at leisure, may see himself operate, scrutinize his own steps and improve his technique where he deems it necessary. Also in a complicated or prolonged surgical illness and especially when consultations are held, the consultants and surgeons may view together the findings of the operation, the various steps and the complicated conditions. The consultants who naturally were not present at the operation may thus see and aid with their advice and opinion.

Such motion pictures in surgery will serve manifold useful purposes; they may be stored away as a surgical motion picture library, available to the entire profession. Not only can we leave for posterity, the fundamental and common subjects, but also the rarest cases which very few would otherwise have a chance to witness.

In the medical schools, in addition to the study of the textbooks, lectures by the professors and laboratory work, the knowledge and undertstanding of a subject may be more easily grasped and mastered by presenting that particular subject also in motion picture. Again, it is incumbent upon the surgeon, before going to the operating table, to be prepared as thoroughly as possible. He at times looks upon the literature, reviews his anatomy in order to make sure of his steps, particularly in a difficult or a rare condition. Thus he may also go to his library shelf and pick out a reel on that particular subject and can be even better prepared to perform the operation. Again those practitioners in the rural districts, where medical centers of study are not as accessible as in the great cities, may to a great extent keep abreast of the developments of medical surgery by such films which they may readily procure from established sources, just as they obtain books from medical libraries.

One may wonder how such material can be produced and where it can be obtained. The desire of man to leave behind him some work or achievement urges many surgeons to avail themselves of the great opportunity of the cinema. To this the writer proved no exception. About two decades ago when the cinema in the field of medicine and surgery was an innovation, the writer took a fancy to record some of the anatomical facts in motion pictures while working in the dissecting room. Convinced of its great value as an aid in teaching, he continued to develop a good portion of the anatomy, physiology and embryology in cinema form. Then came the most intriguing part of the hobby, 'surgery in motion pictures.' In the past few years he has developed a "system of General Surgery in Motion Pictures." A surgical film library consisting of over 200 reels of 400 feet each of the 16 mm. print. It covers practically all subjects and operations of

*(Continued on page 22)*

# Visual Education in FERA Work

By RAYMOND THOMPSON
County Emergency Relief Administrator
Coeur d'Alene, Idaho

AN outline of a proposed state-wide educational program is now in the hands of our Relief Administration at the State Capital of Idaho. The possibilities of this program are at once apparent when we take into consideration the close contact our various workers have with the thousands of families in our state. That this program might well be adapted and adopted all over the United States is the contention of this writer.

The fundamental principles are as follows: In each county in our state we have a branch of the Federal Relief Administration. This relief work is divided roughly into three divisions: Social Service, Work Projects and Rural Rehabilitation. While the three are very closely inter-related, there are nevertheless, some special distinctions. For instance the Social Service Department functions on the principle of direct contact through the Social Service Aide with the family in the home. In our particular case each Social Service Aide is charged with the rendering of service to not to exceed one hundred and twenty-five families.

In the Works Projects the foreman in charge of seeing that this work is properly carried out, has direct contact day after day with men, the majority of whom are the heads of families.

In Rural Rehabilitation a particular kind of service is rendered, inasmuch as the family is not only contacted in a straight Social Service manner, but is also carried right through the Works Project program to the final completion of the actual rehabilitating, in other words, the placing of the family on a self-sustaining basis.

Where does the value of visual education enter in? First, let us consider the case of the Social Aide. Armed with a small film strip projector the Social Service Aide could give visual instruction to a select group of community mothers in a manner that would most assuredly produce excellent results. The various subjects which could be treated would depend of course upon circumstances, but they would range all the way from ordinary visual lectures in health education to the more intricate phases of Social Service treatment.

Consider also the project foreman, a man who has a great amount of influence over the relief workers under him. The education of these foremen is of great importance and regular meetings should be held in which the topics of handling men on projects, dealing with so-called radical workers, and education along safety engineering lines might well be followed.

In the Rural Rehabilitation program the education of people endeavoring to carry out these projects is of utmost importance if the projects are to culminate successfully.

The use of film strips, lantern slides or even motion pictures in discussing the manner of carrying out these programs would not only be educational but would undoubtedly have a splendid moral effect on the people dealt with. In our county we have worked up sets of glass lantern slides for use in education of the Social Service Aides along certain lines.

For instance, certain sets of films are used to bring out the fact that our people need encouragement. We call one set "The Pioneer Spirit" and the pictures used were taken in the far North where people depend for their very existence upon their initiative in planning ahead and making the utmost of whatever resources they may have available. Another set entitled "Lessons in Harmony From Wild Animals" is an object lesson showing how wild animals of certain kinds live harmoniously and insure their futures through a careful program of thrift. These two sets are merely indicative of the value of visual education in bringing out certain object lessons.

Our plan is first to educate the relief workers who have direct contact with the many thousands of our people. Once we educate these workers, we intend to follow a general educational program with the placing of our specialized film strips and lantern slides before select groups of people. These groups may be, as inferred previously, numbers of community mothers, they may also be certain people who are trying to work out some Rural Rehabilitation program, and if the educational pictures are broad enough, they may be taken before the general public.

## Film Exhibition in India

The first Indian Motion Picture Convention will be held in conjunction with a Photo-Cine-Radio Exhibition in Bombay from February 16th to March 2nd, sponsored by the Motion Picture Society of India. Producers, distributors, exhibitors and others interested are asked to take part.

The sectional meeting on cinematography will be devoted to the historical development of technique, basic materials, applications for scientific educational and social work, health and other propaganda. There will also be lectures accompanied by lanterns slides, films and demonstrations, and daily programs of the best Indian films.

# News and Notes

Conducted by JOSEPHINE HOFFMAN

## Selected Movie Programs for Children

Representatives of ninety-seven social, religious and educational institutions of Manhattan's Lower West Side met with Professor Frederic M. Thrasher of New York University, Mrs. August Zinsser, John Kirkland Clark, president of the Community Councils of the City of New York, and their associates on Sunday, December 9th, to perfect plans for New York's first comprehensive and scientific experiment in controlled motion pictures.

Explaining the significance of this experiment, Dr. Thrasher said at the meeting: "The purpose of this experiment is neither to censor motion pictures nor to keep children from enjoying motion picture entertainment. Rather, it is our plan to make the community-sponsored program so attractive to the child that he will prefer to attend approved and supervised special performances instead of selecting his film fare on the basis of his own limited discrimination. Recognizing that the average child attends one or more motion picture performances each week, we feel that all community agencies have a very real responsibility in helping to direct a child's taste toward constructive rather than harmful motion picture performances."

If the experiment proves successful, and meets with the approval of the Board of Education, it will form the basis for similar activities throughout Greater New York.

## Film Strips and Slides Tell Story of Farm Machinery

A series of 54 pictures illustrating the development and use of farm implements and machinery in the United States has been prepared by the Bureau of Agricultural Engineering and the Extension Service, U. S. Department of Agriculture. The pictures are primarily for the use of 4-H club workers, schools and other agencies. They depict the continuous development from primitive tools, such as the sickle, to modern power-driven implements and machines.

This collection, known as Series 335, "History and Development of Agricultural Implements and Farm Machinery," is available on glass lantern slides which may be borrowed from the Extension Service, U. S. Department of Agriculture, Washington, D. C., the only charge being the cost of transportation. It is also available for purchase in 16 millimeter film strip form from Dewey & Dewey, Kenosha, Wisconsin, for 45 cents. The Extension Service will supply information regarding the purchase of film strips.

Short lecture notes telling about the development and adoption accompany the slides; the notes are incorporated in the film strip.

## Textbooks Illustrated with Motion Picture Stills

A recent issue of *Motion Picture Herald* reports an interesting and significant move on the part of some of the largest publishers of school textbooks to introduce to English classrooms new grammar books in which scenes from important motion pictures are used as illustrations. In announcing this plan to the Associated Press in New York, Mr. Adolph Zukor, president of Paramount Publix Corporation, declared the students will always be provided with fresh and modern illustrations as they will be replaced from time to time with scenes from current pictures. For instance, illustrations of "Skippy" and "Huckleberry Finn," which are among pictures now being printed in new editions of established grammar books, can be replaced with such travel and political subjects as scenes from "Lives of a Bengal Lancer" and "The President Vanishes." "The Crusades" will furnish much valuable historically interesting pictorial material.

## Pennsylvania High School Successfully Uses Talking Pictures

Talking pictures have played a definite and important part in the regular curriculum activities of the Mahanoy Township High School of Mahanoy City, Pennsylvania. Development of the talking picture program and its successful operation for the past three years are the work of Dr. Joseph F. Noonan, Superintendent of Schools. A short description of the work, written by Dr. Noonan, follows.

"The program comprises two feature pictures each month and eight short subjects. Feature pictures such as Lady of the Lake, Ben Hur,Uncle Tom's Cabin, Dr. Jekyll and Mr. Hyde, Abraham Lincoln, The Virginian, Alexander Hamilton, With Williamson Beneath the Sea, and Little Women comprise the nucleus of a major auditorium program. Short subjects, shown twice each week during the morning assembly exercises, cover the fields of music, science, geography, history, travel, and allied subject divisions. The presentation is informal, no attempt being made to color the vi-

carious experiences thus provided for students by academic exposition. Supplementing the major auditorium activity is a well rounded program of silent and sound pictures which are used in the classrooms purely as aids in the presentation of regular academic classroom instruction.

"The film program is being constantly enriched and steps are now under way to add to its effectiveness by regarding it a mandatory part of the core curriculum."

# Film Production Activities

## Erpi Films Classified into Series

A move to simplify and make more efficient the use of educational talking pictures on the part of educational institutions has been made by Erpi Picture Consultants. This organization has reclassified its entire library of educational films which were produced under the sponsorship of leading educators, universities and institutions, so that the user may select complete series of films especially suited to various courses of study. Under the new classification there are nine series of educational films listed. The number of films in each series range from four to twenty.

The nine series embrace Botany (8 subjects), Zoology (13 subjects), Biology (18 subjects), Physics and Chemistry (6 subjects), General Science (20 subjects), Teacher Training (10 subjects), Nature Study for Primary Grades (11 subjects), Music Appreciation (4 subjects), and Parent-Teacher Programs (12 subjects).

The general worth of these films has been proved by a number of experiments conducted under strict scientific and educational procedure. Results of the experiments have shown that use of the films in connection with the regular classroom presentation of the subject matter has produced a very definite increase in learning, and that the subject matter may be presented more effectively and in less time than is required when the films are not used.

## New Organization to Sponsor Family Programs

The Motion Picture Foundation, New York City, a non-profit agency to sponsor and assist in the production of family motion pictures, has recently been incorporated, with Dr. William B. Millar, formerly General Secretary of the Greater New York Federation of Churches, as secretary. Elizabeth Richey Dessez, formerly with Pathe, is identified with the organization in an executive capacity.

The essential element in the Foundation's program is the production of a regular supply of feature pictures and short subjects which will satisfy the demand for wholesome and intelligent family entertainment. Production plans provide for releasing a program of one feature and from three to five reels of shorts each week during the school year. The pictures will be sold under the direction of the Foundation, but distributed physically through established channels. The Foundation will not go into the business of producing pictures, but it will aid reliable independent producers by financing and insuring distribution of pictures made from short stories which have been selected by the story selection committee of the Foundation.

## Series of Psychology Subjects

The C. H. Stoelting Company, Chicago, are releasing a revised series of 16 mm. films on psychology and physiology, including the following subjects: Eastman's film, *Microscopic Animal Life; Conditioned Responses, Reaction Time, Rote Learning, Illusions of Movement,* and *Industrial Motion Analysis,* from the Ford library; *The Pecking Instinct in Chicks, Reasoning, Maze Learning in the White Rat,* and *Behavior of the Feeble-minded,* from the University of Michigan; *Reflexes in the Frog, Determiners of Attention, Range of Visual Perception, Reliability of Memory, Types of Apparent Movement,* from the University of Southern California; *The Development of Behavior in the Fetal Cat,* from Brown University; *The Ape and the Child,* from the University of Indiana; *Motor Conditioning in Dogs,* and *Views of a Decorticate Dog,* from the University of Illinois. One 35 mm. film, *Mechanics of the Brain,* from the Physiological Laboratory of the Russian Academy of Sciences, may be rented.

## Two New Government Films Released

*Duck Farming,* a new one-reel silent motion picture film, and a two reel film, *Home Demonstration Work in the Western States,* have been released by the Division of Motion Pictures, U. S. Department of Agriculture.

"Shots" of the Muscovy, the Runner, the Mallard, the Pekin and other breeds of ducks, of both ornamental and commercial types, are included in the duck film. Commercial duck farming methods are illustrated by scenes showing approved procedure in brooding, feeding and marketing of ducks.

The Home Demonstration film gives a general idea of the scope of home demonstration work in the West and shows how this work helps farm people to improve their homes and to enjoy them. Copies of these films are available in both the 35 and 16 mm. width.

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